INCH-POUND
ATPD 2242
9 January 1998
SUPERSEDING
MIL-V-62060B(AT)
8 August 1980

PURCHASE DESCRIPTION

VEHICLE, COMBAT ENGINEER, FULL TRACKED: 165 MM GUN, M728; PROCESSING FOR SHIPMENT AND STORAGE OF

This purchase description is approved for use by the U.S. Army Tank-automotive and Armaments Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This purchase description covers processing of the M728, 165 MM Gun, Full Tracked, Combat Engineer Vehicle; for storage outside of buildings, for immediate use shipment, and for domestic or oversea shipment, including carloading; meeting the requirements of levels A and B processing (see 1.2).

1.2 Classification. Processing shall be of the following levels as specified (see 6.1):

Level A	- Processing for domestic or oversea shipment and any storage outside of buildings in excess of 90 days from date of processing (periodic care and preservation during storage required).
Level B	- Limited processing for immediate use shipment and for domestic or oversea shipment (excluding open deck loading) and any storage not to exceed 90 days from date of processing.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/BLUE, Warren, MI 48090, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document, or by letter.

AMSC N/A AREA PACK

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this purchase description. This section does not include documents cited in other sections of this purchase description or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirement documents cited in sections 3 and 4 of this purchase description, whether or not they are listed

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

A-A-203	- Paper, Kraft, Untreated.
A-A-374	- Sodium Bicarbonate, Technical.
A-A-883	- Tape, Pressure Sensitive Adhesive, Masking.
A-A-1800	- Varnish, Oil: Spar.
A-A-1898	- Cushioning Material, Cellulosic, Packaging.
A-A-30081	- Tips, Cane and Crutch.
A-A-50177	- Paper, Lens.
A-A-55057	- Panels, Wood/Wood Based; Construction and Decorative.
O-E-760	- Ethyl Alcohol (Ethanol), Denatured Alcohol, and Proprietary Solvent.
O-S-801	- Sulfuric Acid, Electrolyte (For Storage of Batteries).
P-D-220	- Detergent, General Purpose.
T-R-650	- Rope, Yarn and Twine, Bast Fiber.
V-F-106	- Fasteners, Slide, Interlocking.
V-T-295	- Thread, Nylon.
QQ-A-250/11	- Aluminum Alloy 6061, Plate and Sheet.
QQ-A-1876	- Aluminum Foil.
QQ-S-698	- Steel, Sheet and Strip, Low Carbon.
TT-C-490	- Cleaning Methods and Pretreatment of Ferrous Surfaces for Organic Coatings.

TT-E-527	- Enamel, Alkyd, Lusterless, Low VOC Content.
TT-E-529	- Enamel, Alkyd, Semi-gloss, Low VOC Content.
TT-P-1757	- Primer Coating, Alkyd Base, One Component.
UU-C-282	- Chipboard.
UU-T-81	- Tags, Shipping and Stock.
VV-L-800	- Lubricating Oil, General Purpose, Preservative (Water-Displacing, Low Temperature).
WW-T-700/6	- Tube, Aluminum Alloy, Drawn, Seamless, 6061.
MMM-A-179	- Adhesive: Paper Label.
MMM-A-1617	- Adhesive, Rubber Base, General Purpose.
PPP-B-601	- Boxes, Wood, Cleated Plywood.
PPP-B-621	- Box, Wood Nailed and Lock-Corner.
PPP-C-1120	- Cushioning Material, Uncompressed Bound Fiber for Packaging.

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MIL-C-104	- Crates, Wood; Lumber and Plywood Sheathed, Nailed and Bolted.
MIL-B-117	- Bags, Sleeves and Tubing.
MIL-B-121	- Barrier Material, Grease Proofed, Waterproofed, Flexible.
MIL-P-130	- Paper, Wrapping, Laminated and Creped.
MIL-C-450	- Coating Compound, Bituminous Solvent Type, Black (for Ammunition).
MIL-P-3420	- Packaging Materials, Volatile Corrosion Inhibitor, Treated, Opaque.
MIL-C-5501	- Cap and Plug Protective, Dust and Moisture Seal.
MIL-I-8574	- Inhibitors, Corrosion, Volatile, Utilization of.
MIL-PRF-10924	- Grease, Automotive and Artillery.
MIL-B-11188	- Batteries, Storage: Lead-acid.
MIL-W-12332	- Welding, Resistance, Spot, Seam, and Projection, for Fabricating Assemblies of Low Carbon Steel.
MIL-PRF-16173	- Corrosion Preventive Compound, Solvent Cutback, Cold-Application.
MIL-D-16791	- Detergents, General Purpose (Liquid, Nonionic).
MIL-R-17343	- Rope, Nylon.
MIL-C-20696	- Cloth, Coated, Nylon, Waterproof.
MIL-L-21260	- Lubricating Oil, Internal Combustion Engine, Preservative and Break-in.
MIL-B-22191	- Barrier Material, Transparent, Flexible, Heat Sealable.
MIL-R-24049	- Rope, Polypropylene.

MIL-P-46002	- Preservative Oil, Contact and Volatile Corrosion Inhibited.
MIL-L-46167	- Lubricating Oil, Internal Combustion Engine, Arctic.
MIL-C-46168	- Coating, Aliphatic, Polyurethane, Chemical Agent Resistant.
MIL-H-46170	- Hydraulic Fluid, Rust Inhibited, Fire Resistant, Synthetic Hydrocarbon Base.
MIL-T-50036	- Talc, Technical, T1.
MIL-D-81298	- Dye, Liquid, for the Detection of Leaks in Aircraft Fuel Systems.

STANDARDS

FEDERAL

FED-STD-595	- Colors Used in Government Procurement.
FED-STD-751	- Stitches, Seams, and Stitching, Standard Practice for.

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MIL-STD-129	- Marking for Shipment and Storage.
MIL-STD-2073-1	- Military Packaging, Standard Practice for.
MS15795	- Washers, Flat-Metal, Round, General Purpose.
MS16228	- Nut, Self-Locking, Hexagon-Thin, UNC 38 (Non-Metallic Insert) Austenitic Corrosion Resistant Steel, Nonmagnetic, 250 Deg. F.
MS16562	- Pin, Spring, Tubular, Slotted.
MS17829	- Nut, Self-Locking Hexagon, Regular Height, 250°F, (Non-Metallic Insert) Non-Corrosion Resistant Steel.
MS27128	- Nut, Welding - Pilot.
MS21783	- Washers, Flat-Round, Steel, Cadmium Plated, General Purpose.
MS35191	- Screw, Machine - 82 Degree Flat Countersunk Head, Cross Recessed, Carbon Steel, Cadmium Plated, UNF-2A.
MS35223	- Screw, Machine, Pan Head, Slotted, Carbon Steel, Cadmium Plated, NC-2A, and UNC-2A.
MS35335	- Washer, Lock, Flat - External Tooth.
MS35338	- Washer, Lock - Spring, Helical, Regular (Medium) Series.
MS35691	- Nut, Plain, Hexagon (Jam) UNC-2B and UNF-2B.

MS35751	- Bolt, Square Neck, Round Head (Carriage) Steel, Cadmium or Zinc Plated NC-2A and UNC-2A.
MS35842	- Clamp, Hose, Low Pressure, Type F.
MS51967	- Nut, Plain, Hexagon - Carbon Steel, Cadmium Plated, UNC-2B.
MS51968	- Nut, Plain, Hexagon - Carbon Steel, Cadmium Plated, UNF-2B.
MS90725	- Screw, Cap, Hexagon Head (Finished Hexagon Bolt), Steel, Grade 5, Cadmium Plated, UNF-2A.
MS90726	- Screw, Cap, Hexagon Head (Finished Hexagon Bolt), Steel, Grade 5, Cadmium Plated, UNF-2A.
MS90727	- Screw, Cap, Hexagon Head (Finished Hexagon Bolt), Alloy Steel, Grade 8, Cadmium Plated, UNF-2A, Plain and Self-Locking.
MS122034	- Washer-Lock, Spring.

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

DRAWINGS

ARMY

423573	- Screw, Lock Washer.
425594	- Screw, Lock Washer.
547557	- Chape, Web.
7323827	- Lock, Pin - Plain Carbon Steel, Class A.
7359964	- Pin, Lift Link Pivot.
7705186	- Arm Assy., Tilt, Inner, Left, Bulldozer.
8381771	- Beam Assembly, Push, Bulldozer.
8381773	- Arm Assy., Tilt, Inner, Left, Bulldozer.
8381774	- Arm Assy., Tilt, Inner, Right, Bulldozer.
8709448	- Cap.
10870861	- Packing, Preformed Rubber.
10934287	- Pin, Straight, Grooved.
10934288	- Pin, Straight, Grooved.

11655238	- Finger.
11655239	- Flange.
11727460	- Periscope, Tank: M36E1.

PURCHASE DESCRIPTIONS

ATPD 2241	- Vehicles, Wheeled, Preparation for Storage and Shipment.

(Copies of these drawings and purchase descriptions are available from the U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/BLUE, Warren, MI 48397-5000.)

2.3 Other publications. The following documents form a part of this purchase description to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A108	- Steel Bars, Carbon, Cold Finished, Standard Quality, Standard Specification for (DoD Adopted).
ASTM A512	- Cold Drawn, Buttwelded, Carbon Steel Mechanical Tubing Standard Specification for (DoD Adopted).
ASTM A513	- Electric-Resistance Welded Carbon and Alloy Steel Mechanical Tubing, Standard Specification for (DoD Adopted).
ASTM A519	- Seamless Carbon and Alloy Steel Mechanical Tubing, Standard Specification for (DoD Adopted).
ASTM A641	- Zinc Coated (Galvanized) Carbon Steel Wire, Standard Specification for (DoD Adopted).
ASTM A809	- Aluminum Coated (Aluminized) Carbon Steel Wire, Standard Specification for (DoD Adopted).
ASTM A818	- Coppered Carbon Steel Wire E1, Standard Specification for (DoD Adopted).
ASTM A827	- Plates, Carbon Steel, for Forging and Similar Applications, Standard Specification for (DoD Adopted).
ASTM A853	- Steel Wire, Carbon, for General Use, Standard Specification for (DoD Adopted)..
ASTM B221	- Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes, Standard Specification for (Metric) (DoD Adopted).

ASTM B241	- Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube, Standard Specification for (DoD Adopted).
ASTM B308	- Aluminum-Alloy 6061-T65 Standard Structural Profiles, Standard Specification for (DoD Adopted).
ASTM D1974	- Closing, Sealing, and Reinforcing Fiberboard, Standard Specification for (DoD Adopted).
ASTM D3953	- Strapping, Flat Steel and Seals, Standard Specification for (DoD Adopted).
ASTM D5330	- Pressure Sensitive Tape for Packaging, Filament Performed, Standard Specification for (DoD Adopted).
ASTM D5486	- Pressure Sensitive Tape for Packaging, Box Closure and Sealing, Standard Specification for (DoD Adopted).

(Application for copies should be addressed to American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

AMERICAN WELDING SOCIETY (AWS)

AWS A5.1	- Carbon Steel Electrodes for Shielding Metal Arc Welding, Specification for (DoD Adopted).
AWS A5.8	- Filler Metals for Brazing and Braze Welding, Specification for (DoD Adopted).
AWS A5.10	- Aluminum and Aluminum-Alloy Welding Electrodes and Rods, Specification for (DoD Adopted).
AWS C3.4	- Torch Brazing, Specification for (DoD Adopted).
AWS C3.5	- Induction Brazing, Specification for (DoD Adopted).
AWS C3.7	- Aluminum Brazing, Specification for (DoD Adopted).

(Application for copies should be addressed to American Welding Society, 550 N.W. LeJeune Road, Miami, FL 33126)

ASSOCIATION OF AMERICAN RAILROADS PUBLICATIONS

Section No. 1	- General Rules Governing Loading of Commodities on Open Top Cars.
Section No. 6	- Rules Governing the Loading of Department of Defense Materiel on Open Top Cars.

(Application for copies should be addressed to the Association of American Railroads, 50 East Van Buren, Chicago, IL 60605.)

DEPARTMENT OF TRANSPORTATION (DOT)

Hazardous Materials Regulations.
Federal Motor Carrier Safety Regulations.

(Application for copies should be addressed to the Department of Transportation, Washington, DC 20590.)

OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)

Public Law - 91-596

(Application for copies should be addressed to the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

3. REQUIREMENTS

3.1 Level A.

3.1.1 First production processed vehicle. The first production processed vehicle shall be subjected to the inspection specified in 4.2. Approval of the first production processed vehicle shall not relieve the contractor of his obligation to process all vehicles in accordance with this purchase description. Except as otherwise specified by the procuring activity, any changes to materials or design after approval of the first production processed vehicle, shall require submission of an additional production processed vehicle to the inspection specified in 4.2.

3.1.2 Processing records. Records of vehicle processing shall be maintained, and be readily available for review by the Government representative.

3.1.3 Disassembly. Parts vulnerable to damage and pilferage, and projecting parts whose removal will accomplish reduction in cube shall be removed from the vehicle. Removed parts shall be preserved, packaged, and packed (separate from BII) in accordance with the individual document for the specific item. Level of protection shall be the same as specified for the vehicle. The packed parts shall be placed in a protected location in the vehicle and secured in a manner to prevent movement and damage during shipment and storage. Removed bolts and nuts, screws, pins, and washers shall be placed in one of the mating parts and secured to prevent their loss.

3.1.3.1 Matchmarking. Parts removed from the vehicle shall be matchmarked to facilitate reassembly. Matchmarking information shall be on cloth shipping tags conforming to type A of UU-T-81, or metal tags marked with soluble paint and attaching to mating parts. The

marked cloth shipping tags shall be water-proofed with varnish conforming to A-A-1800, or adhesive conforming to MMM-A-179.

3.1.4 Record forms. Two copies of DD Form 1397 shall be provided. Information on forms shall include preservation accomplished and depreservation instructions. The equipment log book binder and one copy of DD Form 1397 shall be placed in a bag conforming to type I, Style 2, of MIL-B-117; bag shall be closed by heat sealing and securely attached inside the vehicle. The other copy of DD Form 1397 shall be waterproofed with adhesive conforming to MMM-A-179 and securely attached in conspicuous location on the exterior of the vehicle.

3.1.5 Cleaning and drying.

3.1.5.1 Interior of vehicle. Vehicle interior surfaces shall be cleaned in accordance with MIL-STD-2073-1, except that cleaning compounds shall be detergents conforming to P-D-220 or MIL-D-16791, in warm water solution. Liquids under pressure shall be used only in the engine compartment. Drying shall be in accordance with any applicable procedure of MIL-STD-2073-1.

3.1.5.1.1 Battery supports and retainers. Battery supports and retainers shall be cleaned with a solution composed of ½ pound of sodium bicarbonate conforming to A-A-374, per gallon of water, flushed with clear water and dried. Battery supports and retainers shall be coated with compound conforming to MIL-C-450.

3.1.5.1.2 Brackets, seats, headrests and crash pads. Cushion components shall be cleaned with a solution of detergent conforming to P-D-220, or type I of MIL-D-16791, in warm water. Cushions shall be wiped with cloths saturated with clean water to remove detergent solution. Care shall be taken not to saturate the cushions with detergent solution or water. After rinsing, cushions shall be dried, then protected in accordance with 3.1.15.

3.1.5.1.3 Fire control items. Exposed optical glass components of fire control items (see 3.1.14) shall be cleaned by blowing optical glass surfaces with air from a hand syringe, or by use of a clean camel-hair brush, followed by use of ethyl alcohol conforming to O-E-760. In cases of contamination not removed by alcohol, cleaning shall be accomplished by use of a solution consisting of two ounces of detergent conforming to MIL-D-16791, ½ gallon of alcohol conforming to O-E-760, and one gallon of distilled water. Using a swab made of paper conforming to A-A-50177, optical glass surfaces shall be washed with the cleaning agent; and washing repeated, using a clean swab each time, until no dirt or other foreign matter remains on the surface. Cleaning shall be accomplished with a minimum of pressure and rubbing, and without use of cloth or rubber materials. Immediately after cleaning, exposed optical surfaces shall be covered with four thicknesses of lens tissue conforming to A-A-50177 and the wrapping secured with tape conforming to type IV, ASTM D5486.

3.1.4.2 Exterior of vehicle. Exterior of vehicle shall be cleaned using a solution of detergent conforming to P-D-220, or type I of MIL-D-16791, in water or steam. Cleaning shall remove all foreign matter. Cleaned surfaces shall be rinsed with clean water, or steam, and thoroughly dried. Care shall be taken to avoid entry of water, or steam, into engine compartment; turret ring; commander's cupola; driver's compartment; or directing steam or water jet against armament.

3.1.5.2.1 Cannon. When inspection indicates the need for reprocessing (see 4.5.2.3), cannon shall be cleaned and thoroughly dried in accordance with MIL-STD-2073-1.

3.1.6 Relubrication. When vehicle has been operated in excess of 50 miles since previous lubrication, or after a liquid or steam cleaning, vehicle shall be lubricated using materials in accordance with pertinent drawings, specifications, or lubrication order. Fill exposed oil can points such as; but not limited to; levers, locking bars, strikes, hinges, hinge pins, locking pins, locking levers, wing nuts, latches, door locks, control rod clevis and pins, brake lever linkage, engine throttle control linkage, "A" frame travel lock, cannon elevating handle, turret manual traversing handle, driver's hatch pivot post and handle, and transmission support guide rails; with oil conforming to VV-L-800. Excess lubricant shall be removed.

3.1.7 Transmission and final drives. Transmission shall contain lubrication oil conforming to type I, grade 10 of MIL-L-21260 filled to operating level. Final drives shall contain lubricating oil conforming to type I, grade 10 or 30, as applicable, of MIL-L-21260 filled to operating level. DD Form 1397 shall be annotated with type and grade of lubricant used.

3.1.8 Engine crankcase. Crankcase of engine shall be filled to operating level with lubricating oil conforming to type I of MIL-L-21260, of the seasonable grade specified in the applicable drawing, specification, or lubrication order. DD Form 1397 shall be annotated with type and grade of lubricant used.

CAUTION: For vehicles being prepared for shipment to, and storage in, areas where ambient temperatures are expected to be at or below minus 20°F, a red warning tag containing the following instructions shall be attached in a conspicuous location in the driver's compartment: "DRAIN ENGINE CRANKCASE AND REFILL WITH MIL-L-46167 OIL BEFORE OPERATING ENGINE."

3.1.9 Engine preservation. Compression ignition engine shall be preserved in accordance with 3.1.9.1 through 3.1.9.5.

3.1.9.1 Preservation through fuel system and combustion chamber. Prior to processing engine, the engine shall be cooled to assure that cylinder head temperature, measured at injector nozzle flange surface of all cylinders, is not more than 100°F. Cooling shall be accomplished by induced air currents, or by waiting the period of time required to arrive at the above specified temperature. When ambient temperature exceeds 100°F, engine shall be cooled to a temperature equivalent to the ambient. After engine has been cooled, the fuel supply system from the fuel tanks shall be shut off. Provide an auxiliary fuel container with two compartments and a selector valve. Fill one container with grade 1 of MIL-L-46002 colored with an oil soluble red dye conforming to MIL-D-81298, in a concentration sufficient to impart a marked coloring to the oil. The second compartment shall be filled with diesel fuel conforming to A-A-52557. Air pressure of approximately 15 psi should be used to move fluids through the system. Unlock gun tube, if tube installed, unlock turret and rotate 180 degrees to gain access to engine access bulkhead plate. Remove plate and secure with attaching hardware inside turret. Disconnect fire extinguisher quick disconnect at bulkhead. Disconnect fuel injector pump inlet line at elbow and cap off (seal off) line from fuel tanks. Attach swivel double fitting to inlet line and attach line from processing tanks. Remove studs from rear engine access doors and open doors. Unlock transmission shield cover and remove. Connect transparent plastic tubing to the engine fuel return line, with other end into a container, to collect return fuel. The air cleaner inlet hose to each turbocharger air born shall be disconnected and air restrictor covers, fabricated in accordance with figure A1, installed to each turbocharger inlet. The selector valve on the auxiliary processing tank shall be turned to deliver colored preservative oil through the fuel system until visually observed at recovery container. At this point with accelerator depressed to full throttle, engine shall be cranked with starter for three (3) thirty (30) second periods, not to exceed forty-five (45) seconds as follows: Cranking shall be for a period of thirty (30) seconds, with starter allowed to cool for a minimum of three (3) minutes, turn preservative valve off during cooling periods.

CAUTION: Each cranking period shall not exceed the following limits: 25 seconds minimum - 35 seconds maximum. Special precautions shall be taken to assure that time limits specified shall not be exceeded as the engine, the starter, or starter solenoid may be damage.

NOTE: Engine may fire for five seconds while being cranked with air restrictors installed. Reconnect electrical leads to intake manifold igniter plugs. Remove air restrictor covers, but do not reconnect turbocharger hoses (see 3.1.9.3).

3.1.9.2 Engine purging. After preservation is completed, purge lines by turning selector valve to diesel fuel and proceed until flowing clear into recovery container. Reconnect fuel injector pump inlet line and fire extinguisher quick disconnect at bulkhead.

3.1.9.3 Preservation of turbochargers. Remove air restrictor covers and spray two (2) ounces of preservative oil MIL-L-46002, grade 1 into each turbocharger inlet. Turbocharger inlets and air cleaner hoses shall be sealed with type IV, ASTM D5486 tape, or with plastic plugs conforming to MIL-C-5501.

3.1.9.4 Preservation through exhaust system. Two ounces of preservative oil conforming to MIL-L-46002, grade 1 shall be atomize-sprayed into each exhaust opening. Openings shall be sealed with tape conforming to type IV of ASTM D5486. The engine crankcase breathers shall be sealed with plastic plugs conforming to MIL-C-5501, or tape conforming to type IV of ASTM D5486.

3.1.9.5 Preservation through dipstick shroud opening and oil filler tube. Preservation through dipstick shroud opening and oil filler tube shall be accomplished by atomize-spraying six (6) ounces preservative oil MIL-L-46002, grade 1 into the crankcase through the oil filler cap opening. An extension of sufficient length to permit spray nozzle to be within the crankcase shall be used. Spray nozzle shall not be submerged in the crankcase oil. (NOTE, in case of inability to use filler tube, the dipstick shroud opening shall be used.) After spraying has been accomplished, oil filler cap closed, and all openings to the engine interior, including dipstick shroud opening and oil filler cap, shall be sealed with tape ASTM D5486, type IV. After processing is completed, prepare a red tag imprinted with the following warning:

“ENGINE PRESERVED WITH V.C.I. DO NOT CRANK. BEFORE CRANKING ENGINE, REMOVE TAPE OR PLUGS FROM TURBOCHARGER INLETS, AIR CLEANER HOSES, EXHAUST TUBE OPENINGS, CRANKCASE BREATHERS, OIL FILLER CAP, DIPSTICK SHROUD OPENINGS, AND FROM OTHER TO THE ENGINE INTERIOR. RECONNECT AIR CLEANER HOSES TO TURBOCHARGER INLETS.”

Place tag in a conspicuous location in driver’s compartment. Annotate DD Form 1397 to show that engine has been processed with V.C.I. and preservative oil.

3.1.9.6 Personnel heater and fuel pump. After processing engine as specified in 3.1.9, uncouple quick-disconnect from personnel heater fuel pump line and drain the fuel line. Seal ends of disconnected fuel line with plastic caps/plugs conforming to MIL-C-5501, or tape conforming to type IV of ASTM D5486. The external heater exhaust opening shall be sealed with tape conforming to type IV of ASTM D5486. Warning tags with the following information shall be secured to the heater unit, to the heater fuel pump, and to the heater operating switch on the driver’s control panel: ‘HEATER FUEL LINE DISCONNECTED AND SEALED - REMOVE SEALS FROM FUEL LINE AND EXHAUST TUBE - OPERATE HEATER FUEL PUMP TO DRAIN MINIMUM OF ONE QUART FUEL - RECONNECT FUEL LINE TO HEATER PRIOR TO STARTING.”

3.1.10 Fuel tanks. Each fuel tank shall be drained to the minimum extent possible. Fuel tank cap and filler screen shall be removed and coated with lubricating oil conforming to type I, grade 30 of MIL-L-21260. One quart of lubricating oil conforming to type I, grade 10 of MIL-L-21260 shall be added to each five gallons, or portion thereof, of residual fuel. Tank cap and filler screen shall be reinstalled.

3.1.11 Turret ring bearing. Lubrication of turret ring bearing for production processed vehicles shall be in accordance with specified manufacturing requirements. For other than new production vehicles, lubricate race ring bearing in accordance with recommended semi-annual maintenance procedures.

3.1.12 Cannon and mount.

3.1.12.1 Cannon. Immediately after cleaning (see 3.1.5.2.1), bore and chamber of the cannon shall be coated with preservative oil conforming to VV-L-800. Excess preservative shall be allowed to drain from coated surfaces. A strip of VCI treated barrier material conforming to type I, class 3, style A of MIL-P-3420 shall be cut and rolled into a tube with the VCI treated surface on the outside. The barrier material shall be of a size that will provide a continuous cover for the bore and chamber surfaces. The rolled barrier material shall be inserted into cannon extending entire length of bore and chamber. The barrier tube shall not be forced or kinked in a manner which will obstruct the chamber. The cannon shall remain in battery with turret travel lock secured in the lock position. VCI material shall be applied in accordance with MIL-I-8574.

3.1.12.1.1 Muzzle plug. A plug shall be provided for the muzzle end of the cannon (see figure B1). Muzzle plug shall be completely overwrapped with aluminum foil conforming to QQ-A-1876, positioned in muzzle end of cannon and secured in place with tape conforming to type IV of ASTM D5486. The joint around muzzle plug and cannon shall be completely sealed with tape conforming to type IV of ASTM D5486. A polyethylene bag conforming to MIL-B-117, type I, style 2, class B (6 mils), shall be provided. Bag shall be 16 inches long, of applicable width. Bag shall be installed over muzzle end of cannon and secured in place with four strips of tape conforming to type IV of ASTM D5486. Tape shall run lengthwise on the cannon placed at top, bottom, and each side of cannon. Tape shall be 12 inches long and a minimum one inch in width, applied equally six inches onto bag and six inches onto painted surfaces of the cannon. Bag shall be sealed to cannon with tape conforming to type IV of ASTM D5486. Tape shall be of applicable length, to provide a continuous seal around circumference of cannon, and six inches in width. Tape shall be applied equally three inches onto bag and three inches onto painted surfaces of the cannon. Two additional one inch strips of tape conforming to type IV of ASTM D5486 shall be applied at equal intervals between muzzle end of cannon and area where bag is sealed to cannon. Tape shall be applied completely around circumference of bag to provide additional securement of bag to cannon.

3.1.12.1.2 Breech mechanism. All unpainted surfaces, including phosphated surfaces of the breech ring, breech block and firing mechanism, shall be coated with grease conforming to MIL-PRF-10924.

3.1.12.2 Exercising of recoil mechanism. Prior to processing as specified in 3.1.12.2.2, and when the recoil mechanism has not been exercised, proof fired, overhauled, or manufactured within four months prior to processing for storage or shipment, the recoil mechanism shall be exercised a minimum of three extension of the recoil piston. Extension shall be a minimum of six inches. Record of exercising shall be entered on DA Form 2408-4 “Weapon Record Data” and proof testing of the weapon entered on DA Form 2408-9 “Proof Acceptance Record” (see 3.1.19).

3.1.12.2.1 Processing of recoil mechanism after exercising. Accessible machined metal surfaces of the cannon immediately forward of the recoil mechanism shall be coated with grease conforming to MIL-PRF-10924. Inaccessible machined metal surfaces shall be fogged with preservative oil conforming to type I, grade 10 of MIL-L-21260. Processing shall be accomplished by removing cover of the cannon shield. The surface of the recoil mechanism immediately forward of the breech ring collar shall be coated with grease conforming to MIL-PRF-10924. Application of grease shall be made while cannon is out of the battery during exercising and upon last extension prior to return to battery.

3.1.12.2.2 Counter recoil mechanism. Without disassembly, exposed unpainted machined surfaces of the counter recoil mechanism shall be cleaned and coated with grease conforming to MIL-PRF-10924.

3.1.12.3 Exercising of replenisher. Replenisher assemblies shall be exercised coincidently with the recoil mechanism (see 3.1.12.2).

3.1.12.3.1 Processing of replenisher after exercising. Replenisher shall be filled to bleed position with hydraulic fluid conforming to MIL-H-46170, then drained to operating level.

3.1.12.4 Cannon mounts. Exposed unpainted surfaces of elevating cylinder, trunnions, trunnion caps, and bearings shall be coated with grease conforming to MIL-PRF-10924.

3.1.12.5 Commander’s cupola. Periscope guard on the top of cupola shall be removed, identified, and stowed in the interior of the turret. See 3.1.14.1 for processing of removed parts.

3.1.12.6 Hydraulic systems. Hydraulic systems shall be filled to operating level with hydraulic fluid conforming to MIL-H-46170.

3.1.13 Batteries, cables, and electrolyte.

3.1.13.1 Dry charge batteries and cables. Positive battery cables shall be taped to the battery-to-ground cable with tape conforming to type IV of ASTM D5330. Dry charge batteries shall be installed and secured in the vehicle battery carrier. Unless filler caps have been sealed in accordance with the provisions of MIL-B-11188, filler cap openings shall be sealed by placing a sheet of film, 2 inches wide by 0.003 inch thick, conforming to type I of MIL-B-22191, over all filler openings, with cap removed. The sheet shall be of sufficient size to allow an adequate amount of film to be depressed into each opening the same depth as the filler plug. The plug shall then be screwed or inserted into filler openings, to form a complete seal, without damaging the film.

3.1.13.2 Electrolyte. Electrolyte shall be packaged, packed, and marked as specified for O-S-801, except that the exterior container shall conform to PPP-B-601 or PPP-B-621. The packed electrolyte shall be stowed with the basic issue item (BII) and secured independently to permit separate travel.

3.1.14 Fire control items.

3.1.14.1 Commander's periscope. If installed, the commander's periscope shall be removed. Exposed optical components shall be cleaned and protected as described in 3.1.5.1.3. All exposed, unpainted, unplated metal surfaces shall be coated with grease conforming to MIL-PRF-10924. Immediately after preservation, apply protective guards to the eyepiece assembly (paperboard tube, taped in place) and to the elevator arm (plywood block with cemented rubber pads) as specified in packaging data sheet 11727460. (NOTE: Production processors may refuse serviceable items salvaged from packaging materials as applied by equipment source packagers.) The commander's periscope shall then be wrapped with barrier material conforming to type II of MIL-P-130, or equivalent; placed in a bag conforming to type I, class E, style 1, of MIL-B-117 and sealed; cushioned on four sides and both ends with pads conforming to type IV, class A, of PPP-C-1120, or equivalent; and placed in a container conforming to style RSC, grade V3-C, of ASTM D1974. Cushioning material shall be a minimum of one-inch thick. Seal container with tape conforming to ASTM D5486, type IV. The packaged periscope then shall be secured inside the vehicle crew compartment. (Exterior size of package must allow passage through the turret hatches.) This removed periscope guard (see 3.1.12.5), gasket, and six each of the guard mounting screws and lockwashers (see figure B6) shall be preserved in accordance with level A requirements of MIL-STD-2073-1. The preserved parts shall be packaged to level A requirements of MIL-STD-2073-1, identified as to components, and be securely stowed within the vehicle. Bare metal surfaces around the cupola opening exposed by removal of the guard shall be cleaned, preserved with grease conforming to MIL-PRF-10924, and the opening shall be sealed with a wood cover in accordance with figure B6. Attachment of the wood cover shall be accomplished by using three each of the removed

screws and lockwashers that secured the guard to the cupola mount. Secure to the underside of the wood cover a tag bearing the following instructions: "DO NOT DISCARD THE SCREWS AND LOCKWASHERS USED TO MOUNT THIS COVER - USE THEM WITH OTHER PACKAGED HARDWARE TO REMOUNT THE EXTERIOR PERISCOPE GUARD."

3.1.14.2 Gunner's periscope and telescope. The gunner's telescope and passive vision periscope shall not be removed from installed vehicle positions. Exposed optical components shall be cleaned and wrapped positions. Exposed optical components shall be cleaned and wrapped in accordance with grease conforming to MIL-PRF-10924. The shield on the gunner's periscope guard shall be secured in the down position.

3.1.14.3 Instrument lights. If installed, instrument lights shall be removed from the vehicle, packaged and packed in accordance with 3.1.14.7. Instrument lights shall be packaged without batteries.

3.1.14.4 Infinity sight. The infinity sight shall remain installed in the vehicle. Exposed optical surfaces and unprotected metal surfaces shall be cleaned, preserved, and wrapped in accordance with applicable provisions of 3.1.5.1.3 and 3.1.14.2.

3.1.14.5 Level vial covers. All level vial covers shall be positioned over the vials.

3.1.14.6 Exposed optical glass. Any exposed optical glass, not otherwise provided for herein, shall be cleaned, wrapped and taped as specified in 3.1.5.1.3.

3.1.14.7 Removed fire control items. Removed fire control items shall be cleaned (see 3.1.5.1.3) and immediately packaged and packed in accordance with level A requirements of MIL-STD-2073-1; then stowed with BII, or as otherwise prescribed by the procuring agency.

3.1.14.8 Driver's and loader's vision equipment. If installed, the driver's and loader's daylight periscopes and the driver's night vision viewer shall be removed from the vehicle. Exposed optical surfaces of the periscopes and viewer shall be cleaned in accordance with instructions in 3.1.5.1.3. Exposed unpainted, unplated, metal surfaces shall be cleaned and coated with grease conforming to MIL-PRF-10924. Preserved parts shall be packaged in accordance with 3.1.18.

3.1.15 Headrests, seats, and protective pads. Immediately after cleaning (see 3.1.5.1.2), installed headrests, cushioned components of seats, and protective pads shall be covered with paper conforming to A-A-203, having a minimum basic weight of 60 pounds. Paper shall be secured with tape conforming to A-A-883.

3.1.16 Hatches and doors. Rubber seals around hatches and doors shall be coated with powdered talc conforming to MIL-T-50036. During shipment, hatches and doors shall be closed and locked from the inside, except the loader's hatch shall be closed and secured from the outside with a bolt drawn up tight and bolt threads peened or nut tack-welded, or with an approved Government padlock. Brakes shall not be set on vehicles having hatches and doors sealed and secured.

3.1.17 Miscellaneous preservation. Except as otherwise specified herein, all exposed, unpainted machined metal surfaces on the interior of the vehicle shall be coated with preservative conforming to grade 4 of MIL-PRF-16173. All exposed, unpainted machined metal surfaces on the exterior of the vehicle, except tracks, shall be coated with preservative conforming to grade 1 of MIL-PRF-16173.

3.1.18 Basic issue items (BII). The basic issue items shall be packaged, packed and stowed in accordance with ATPD 2241, or other documents designated by the responsible agency. Sensitive cargo, such as machine guns, may be stowed and shipped within the locked vehicle. When this is not possible, sensitive cargo shall be stored separately under proper security or shipped by separate mode of transportation under proper security. The vehicle shall be provided with BII racks assembled and installed in accordance with figures C1 through C18. Engine grille bolts removed and replaced by longer bolts shall be coated with preservative MIL-PRF-16173, grade 4, wrapped in MIL-B-121, grade A, type II, class 1, barrier material, placed in a ASTM D1974 box closed with type IV, ASTM D5486 tape, identified, and securely stowed within the vehicle. BII containers shall be identified by vehicle serial number and stored inside buildings when vehicles are in outside storage. For domestic vehicle shipment not requiring BII racks, the BII containers shall be anchored to the railcar floor to prevent movement during transit. Corner protectors shall be used under securing straps.

3.1.19 Record forms. Two copies of DD Form 1397 (see 6.3) and a single copy of DA Form 2408-4, weapon record data, and STA Form 4895 and 4895-1, equipment preservation data sheet, preservation for shipment and storage (see 6.3), shall be provided and completed in accordance with ATPD 2241. Information on forms shall include preservation accomplished and depreservation instructions. The equipment log book binder and one copy of DD Form 1397 shall be placed in a 6 mil bag conforming to type I, class B, style 2 of MIL-B-117. Bag shall be closed by heat sealing and securely attached inside the vehicle. The other copy of DD Form 1397 shall be waterproofed with adhesive conforming to MMM-A-179 and securely attached in a conspicuous location on the exterior of the vehicle.

3.1.20 Vehicle closure. Vehicles shall be provided with a protective closure kit in accordance with figures D1 through D122. The closure frame and closure cover shall be fabricated, assembled and installed in accordance with figures D1 through D122. All sharp

corners of framework and bows where cloth will make contact, such as corners on base of the frame, shall be cushioned with a ¾ inch maximum thickness of material conforming to A-A-1898, secured in place with tape conforming to ASTM D5486. To lift vehicle for loading, cover shall be rolled away from front and rear bows to expose vehicle lifting eyes.

3.1.21 Ventilation. All access plates and gaskets on underside of vehicle and the lower bulkhead door shall be removed for ventilation, and the driver's and engine compartment drain valves secured in the open position, and screened in accordance with figures B7 and B8. Unpainted metal surfaces shall be coated with preservative conforming to grade 1 of MIL-PRF-16173, and all items placed in a box conforming to PPP-T-636, identified and stowed within vehicle. Threaded portions, exposed by removal of these items, shall be coated with preservative conforming to grade 1 of MIL-PRF-16173. The following information shall be stenciled in a conspicuous location on the exterior of vehicle: "REMOVE SCREENS, INSTALL ACCESS PLATES, COVERS AND GASKETS, AND CLOSE DRAIN BEFORE VEHICLE OPERATION." Stenciling color shall be white or yellow. Characters shall be a minimum of ¾ inch in height.

3.1.22 Screens. Screens (see figures B2 through B8) constructed of wire cloth; 0.047 inch diameter, 4 by 4 mesh, conforming to type I, class 1 of RR-W-360; shall be installed in access cover openings and over drain valve openings.

3.1.23 Fire extinguishers. Fire extinguishers shall have a minimum of 90 percent of rated full charge. All seals shall be intact, and DA Form 253 completed and securely attached to each extinguisher (see 6.2).

3.1.23.1 Exterior fire extinguisher handle.. Exterior fire extinguisher handles and protective shields shall be completely sealed with tape conforming to type IV of ASTM D5486. A red warning tag containing the following information shall be located in a conspicuous location within the driver's compartment; 'EXTERIOR FIRE EXTINGUISHER HANDLE SEALED WITH TAPE - REMOVE TAPE BEFORE STARTING ENGINE OR PLACING VEHICLE IN SERVICE."

3.1.24 Tow hooks. Two hooks and related hardware shall be removed for shipment and packaged in a type CF, class weather-resistant, box conforming to ASTM D1974. Box shall be closed with tape conforming to ASTM D5486, identified as to contents, and securely stowed within vehicle.

3.1.25 Air cleaner intake. After approval and prior to vehicle shipment, the air cleaner air supply shall be adjusted to assure that air will be taken from the engine compartment and not the crew compartment. Exterior air cleaner discharge elbows shall be sealed with type IV, ASTM D5486 tape.

3.1.26 Bulldozer.

3.1.26.1 Disassembly of moldboard assembly. Moldboard assembly, including inner and outer tilt arms and push beams, shall be removed from vehicle following procedure shown in steps one through five, figure E1. Ram shall be strapped securely in place using 1-1/4 inch by 0.035 inch strapping, conforming to type 1, class B of ASTD D3953, as shown in step five of figure E1. Unpainted, machined metal surfaces exposed by the above procedure shall be coated with preservative conforming to grade 4 of MIL-PRF-16173 (see 3.1.17). Removed bolts, nuts, screws, pins and washers shall be secured in their mating parts in the removed portion of the bulldozer (see 3.1.3.1). Dismounted moldboard assembly shall be mounted on a wooden base.

3.1.26.2 Base construction. Bulldozer parts shall be packed on a base constructed in accordance with figure E2 and as specified herein. Wood used in construction of base shall conform to group II of MIL-C-104. Nails and nailing shall be in accordance with MIL-C-104. Bulldozer parts shall be packed in accordance with figure E3.

3.1.26.3 Packing procedure. Bulldozer parts shall be secured on the crate base in a manner that will assure protection from physical damage. Parts shall be strapped in place, using 1-1/4 inch strapping conforming to type 1, class B of ASTM D3953, in accordance with figure E3. Installation of anchor plates and strapping shall be in accordance with pattern 19, section 6 of the Association of American Railroads Publications (see 2.2). Anchor plates shall be attached to the base, using eight anchor plate screw nails, ¼ by 1-13/16 inch, for each anchor plate.

3.1.27 Telephone box. Secure external telephone box door in closed position using one half-inch wide metal strapping conforming to ASTM D3953, type 1, class B. Strap shall be located between signal light and door latch. Strap tension shall be sufficient to secure the door without damage, or distortion to the box. A strip of tape conforming to ASTM D5486, type IV, or equivalent barrier, shall be applied to box edges under strap to prevent damage to painted surfaces.

3.2 Level B. Vehicles shall be processed the same as specified for level A with the following exceptions:

3.2.1 Transmission and final drives. Transmission and final drives shall contain operational lubricant; as specified on applicable drawings, specifications, or lubrication orders; filled to operating level. If these units contain lubricating oil conforming to type 1, grade 10 or 30 of MIL-L-21260, an additional amount of the same oil shall be added to attain operating level. Operating lubricants shall not be mixed with MIL-L-21260. DD Form 1397 shall be annotated to indicate grade of lubricant or preservative oil used.

3.2.2 Fuel tanks. Unless otherwise specified (see 6.1), vehicles shall be shipped without draining residual fuel from the fuel tanks.

3.2.3 Fire control items. All fire control items shall remain installed. Cleaning and preservation shall be in accordance with requirements of 3.1.5.1.3. All ballistic shields shall be secured in the down position (see 3.1.14 through 3.1.14.7).

3.2.4 Engine crankcase. Engine crankcase shall contain normal seasonal operational lubricant, as specified on lubrication order, filled to operational level. DD Form 1397 shall be annotated to indicate grade of lubricant used (see 3.1.8).

3.2.5 Engine preservation. Engine shall not require preservation for level B shipment and storage (see 3.1.9).

3.2.6 Air cleaners. Air cleaners shall not be disassembled or sealed for level B shipment (see 3.1.25).

3.2.7 Personnel heater and fuel pump. Unless otherwise specified, personnel heaters and fuel pumps shall be in a ready-to-use condition (see 3.1.9.6).

3.2.8 Vehicle closure. Vehicle closure shall not be provided on a vehicle processed for level B shipment.

3.2.9 Exposed vehicle openings. Vehicle openings; such as the cupola machine gun cover opening, shell ejection port, exposed portions of the cupola gun shield, exterior race ring spaces between the turret and hull, and between the turret and cupola; shall be sealed with four-inch wide tape conforming to type IV of ASTM D5486. Exterior surfaces of the cupola vision blocks shall be cleaned with a solution of detergent conforming to P-D-220 and warm water, rinsed with clean water, and dried. Cleaned optical surfaces shall be covered with lightweight chipboard; approximate size 7-1/2 x 2-1/4 inches, conforming to UU-C-282; or suitable filler; and sealed to the cupola with ASTM D5486, type IV, tape. All surfaces to which tape is applied shall be clean and dry to assure effective tape adhesion.

3.2.10 Ventilation. Access plates and gaskets on the underside of the vehicle and the upper bulkhead door shall be removed, and the drain valves shall be secured in the open position, but openings shall not be screened. Removed parts and exposed metal surfaces shall be processed in accordance with 3.1.21. The following note shall be stenciled on the exterior of the vehicle (see 3.1.21 for color and size): “INSTALL ACCESS PLATES, COVERS AND GASKETS, AND CLOSE DRAIN VALVES BEFORE OPERATING VEHICLE.”

3.2.11 Cargo straps and fender boxes. Fabric retaining straps on exterior cargo racks and in the fender boxes shall be removed, identified with their Army part numbers, and be placed in a plastic bag conforming to type II, class B, style 2 of MIL-B-117. The bag shall be closed and stowed inside the vehicle. Fender box covers shall be closed, and handles shall be locked and secured with suitable gage wire conforming to ASTM A853, A818, A641, or A809, as applicable.

3.3 All levels.

3.3.1 Loading on flat cars. Loading of vehicles on open top railcars shall be in accordance with the applicable requirements of section 1, Association of American Railroads Manual, "Loading of Commodities on Open Top Cars" and figures 80 and 81 of section 6 of the AAR rules. Liner conforming to figure A3 shall be inserted into the 2.544 inch diameter hole in bulldozer mounting bracket to accept the front tiedown rods. The quantity of units to be loaded on each railcar, the type of railcar and the applicable transportation data shall be as authorized by the responsible Government transportation office.

3.3.2 Reprocessing engine after loading - level A. If engine is operated in connection with loading, or moving vehicle to loading area, the engine shall be reprocessed as specified in 3.1.9. An auxiliary fuel tank shall supply the fuel. If installed, vehicle cover shall be rolled away from the last two bow sections and lifted clear of exhaust openings to provide air circulation. After reprocessing of engine, vehicle cover shall be restored to its original position. Additional processing of engine is not required where engine was operated in connection with movement of vehicle that was processed to level B requirements.

3.3.3 Marking. In addition to any special marking required herein, or in the contract or order, vehicles shall be marked in accordance with 3.3.3.1 and MIL-STD-129. The information "LIFT HERE" with arrow pointing to the lifting eye shall be stenciled adjacent to each lifting eye using black enamel conforming to TT-E-527, No. 37038. Stenciling shall be in characters a minimum of ¾ inch high and readily visible.

3.3.3.1 Closure marking. The information "TO LIFT VEHICLE FOR LOADING, UNFASTEN AND ROLL COVER FROM FRONT AND REAR BOWS EXPOSING LIFTING EYES - AFTER LOADING SECURE COVER IN THE ORIGINAL POSITION" shall be stenciled on the front and rear outside of the closure in characters a minimum of ¾ inches high using white enamel conforming to TT-E-529.

3.3.3.2 Closure disposition marking. The following information shall be stenciled on the outside, front and rear of the cover: "REUSABLE CLOSURE (COVER AND FRAMEWORK) - DO NOT DESTROY - WHEN REMOVED AND NO LONGER REQUIRED FOR

PROTECTION, PACKAGE AND SHIP PER INSTRUCTIONS ON INSIDE OF COVER." The following information shall be stenciled on the inside, front and rear of the cover:

Packaging and shipping instructions:

1. Depot BII container may be used as shipping box.
2. Securely bundle like items.
3. Package hardware in cloth bags.
4. Group largest, heaviest items in bottom of box.
5. Place other items in void between above items.
6. Fold cover - place on top of above items.
7. Immobilize all items and secure cover.
8. Ship to (address to be furnished by contracting officer) all stenciled characters to be a minimum of 3/4 inches high using white enamel conforming to specification TT-E-529.

3.3.3.3 Shipping label adhesion. To assure effective adhesion when applied during cold weather, military shipment labels, DD Form 1397, shall be cemented to vehicles with adhesive conforming to type 1 of MMM-A-1617. After mounting, labels shall be provided with a protective coating in accordance with applicable provisions of MIL-STD-129.

3.4 Securement of fuel filler cap. A small piece of strip steel, carbon, 1010/1020 not less than .125 thick shall be formed and used to secure cap cover. The strip shall cover approximately 60 percent of the width of the cover. This strip should be secured by an adjacent bolt. If an adjacent bolt is not available, the hold-down pin can be removed and replaced with the proper size bolt and nut; tack weld the nut to the bolt.

3.5 Drive-on/Drive-off capability. When vehicles are to be operated for loading or unloading (see 6.1), the following provisions shall apply:

3.5.1 Fuel tanks. Additional fuel tanks shall be added, as required, to accomplish movement of the vehicle.

3.5.2 Batteries and electrolyte. Batteries shall be filled with electrolyte, be fully charged, and battery cables connected (see 3.1.13.1 and 3.1.31.2). After vehicle self-movement for loading, unloading, or placement in storage, the main power lead to the master relay control box in the driver's compartment shall be disconnected and secured to preclude movement. A tag bearing the following message: "VEHICLE PRESERVED FOR DRIVE-AWAY CONDITION. BEFORE CRANKING, CONNECT HARNESS (CIRCUIT 81) TO MASTER RELAY BOX ON HULL FLOOR UNDER TURRET BASKET. ENGINE AND FUEL TANKS NOT PRESERVED", shall be located in a conspicuous location in the driver's compartment.

3.5.3 Safety. All operations involving paint, solvents, cleaning solutions or fuels shall be provided with adequate ventilation required by 1910.94 OSHA.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this purchase description where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Inspection records. Contractor shall maintain records of all inspections performed. Records shall be readily available for review by the Government representative.

4.2 First production processed vehicle. The first production vehicle shall be subjected to the inspections and tests specified in 4.5.1 and 4.5.2.

4.3 Production processed vehicles. All production processed vehicles shall be subjected to the inspections and tests at the frequencies specified in 4.5.1 and 4.5.2.

4.4 Rejection. Failure of any processed vehicle to conform to the applicable requirements of this purchase description shall be cause for rejection of the vehicle by the Government. No vehicles shall be accepted until objective evidence that the contractor has corrected the condition causing the rejection has been provided to the Government.

4.5 Quality conformance of inspections.

4.5.1 Materials. Except for materials which have been Government inspected at source, all materials to be used in processing of vehicles shall be inspected in accordance with the material specifications; or certified inspection and laboratory test reports furnished which show that materials, as furnished, conform to the detailed specification. When materials are listed on a Qualified Products List, they shall be obtained from one of the approved sources indicated.

4.5.2 Processing. All vehicle processing shall be inspected to determine conformance to this purchase description. Inspection of processing shall include all items specified in table I, and 4.5.2.1 through 4.5.2.3.

TABLE I. Processing inspection.
(see indicated paragraphs for level A and B requirements)

Component	Cleaning Levels A and B	Preservation Level A	Preservation Level B	Packaging Levels A and B
Processing records				3.1.2
Disassembly		3.1.3	3.1.3	3.1.3
Matchmarking				3.1.3.1
Record forms				3.1.4
Interior of vehicle	3.1.5.1			
Battery support & retainers	3.1.5.1.1	3.1.5.1.1	3.1.5.1.1	
Backrests, seats, headrests & crash pads	3.1.5.1.2			3.1.15
Fire control items	3.1.5.1.3	3.1.14	3.2.3	3.1.5.1.3
Exterior of vehicle	3.1.5.2			
Cannon	3.1.5.2.1	3.1.12.1	3.1.12.1	
Relubrication		3.1.6	3.1.6	
Transmission & final drives 1/		3.1.7	3.2.1	
Engine crankcase 1/		3.1.8	3.2.4	
Engine preservation 1/		3.1.9	3.2.5	
Preservation through fuel system & combustion chamber		3.1.9.1	3.1.9.1	
Engine purging		3.1.9.2	3.1.9.2	
Preservation of turbochargers 1/		3.1.9.3	3.1.9.3	
Preservation through exhaust system 1/		3.1.9.4	3.1.9.4	
Preservation through dipstick shroud opening & oil filler tube		3.1.9.5	3.1.9.5	
Personnel heater & fuel pump		3.1.9.6	3.2.7	
Fuel tanks		3.1.10	3.2.2	
Turret ring bearing 1/		3.1.11	3.1.11	
Muzzle plug		3.1.12.1.1	3.1.12.1.1	
Breech mechanism		3.1.12.1.2	3.1.12.1.2	
Exercising of recoil mechanism 2/		3.1.12.2	3.1.12.2	
Processing of recoil mechanism after exercising		3.1.12.2.1	3.1.12.2.1	
Counter recoil mechanism		3.1.12.2.2	3.1.12.2.2	
Exercising of replenisher		3.1.12.3	3.1.12.3	
Processing of replenisher after exercising		3.1.12.3.1	3.1.12.3.1	
Cannon mounts		3.1.12.4	3.1.12.4	
Commander’s cupola				
Hydraulic systems		3.1.12.6	3.1.12.6	3.1.12.5
Dry charge batteries & cables				

TABLE I. Processing inspection - Continued.
(see indicated paragraphs for level A and level B requirements)

Component	Cleaning Levels A and B	Preservation Level A	Preservation Level B	Packaging Levels A and B
Electrolyte				3.1.13.2
Commander's periscope				3.1.14.1
Gunner's periscope & telescope				3.1.14.2
Instrument lights				3.1.14.3
Infinity sight				3.1.14.4
Level vial covers				3.1.14.5
Exposed optical glass				3.1.14.6
Removed fire control items				3.1.14.7
Driver's & loader's vision equipment				3.1.14.8
Headrests, seats, & protective pads				3.1.15
Hatches & doors		3.1.16		
Miscellaneous preservation		3.1.17	3.1.17	
BII		3.1.18	3.1.18	3.1.18
Record forms			3.2.8	3.1.19
Vehicle closure				3.1.20
Ventilation		3.1.21	3.2.10	3.1.21
Screens				3.1.22
Fire extinguishers				3.1.23
Exterior fire extinguisher handle				3.1.23.1
Tow hooks				3.1.24
Air cleaner intake		3.1.25	3.2.6	3.1.25
Bulldozer		3.1.26	3.1.26	3.1.26
Telephone box				3.1.27
Exposed vehicle openings			3.2.9	
Cargo straps & fender boxes			3.2.11	
Loading on flat cars				3.3.1
Reprocessing engine after loading		3.3.2	3.3.2	
Marking				3.3.3
Closure marking				3.3.3.1
Shipping label adhesions				3.3.3.3
Securement of fuel filler cap				3.4
Batteries & electrolyte				3.5.2

1/ NOTE: Inspect DD Form 1397

2/ NOTE: Inspect DA Form 2408-4 and DA Form 2408-9

4.5.2.1 Cleaning. To determine conformance to 3.1.5.1, interior of vehicles shall be examined for cleanliness, and one vehicle each day examined for cleanliness in accordance with the applicable provisions of MIL-STD-2073-1. To determine conformance to 3.1.5.2, exterior of vehicle shall be examined for cleanliness. Surfaces to which tape is to be applied shall be examined for cleanliness before applying tape.

4.5.2.2 Fuel tanks. To determine conformance to 3.1.10, interior of fuel tanks shall be examined and visual inspection shall assure that complete processing, as specified, has been accomplished.

4.5.2.3 Cannon. Cannon shall be examined to determine condition and effectiveness of processing. When reprocessing has been accomplished, it shall be examined for conformance to 3.1.5.2.1 and 3.12.1.

4.5.2.4 Engine. To determine conformance to 3.1.9, interior of the engine from the first processed vehicle shall be examined for surface coverage. One cylinder head shall be removed to permit visual examination of surfaces within the combustion chamber. Surfaces within the combustion chamber, including piston crown, cylinder wall, and chamber head, shall have a “wet” coating of preservative oil such as is obtained when an item is dipped or flushed with the oil. The processing method used to prepare the approved preserved engine shall be applied to subsequent production vehicles (see 3.1.1).

5. PACKAGING

This section is not applicable to this purchase description.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Ordering data. Procurement documents should specify the following:

a. Title, number, and date of this purchase description.
b. Selection of applicable level of processing (see 1.2).
c. If draining of residual fuel from tanks is required (see 3.2.2), or if additional fuel is required (see 3.5.1).
d. If special marking is required (see 3.3.3).
e. If vehicle drive on/drive off capability is required (see 3.5).

6.2 Safety precautions. Caution should be exercised in handling carbon dioxide (CO_2) fire extinguisher cylinders. Cylinders should not be dropped, permitted to strike each other, or be handled roughly. Extreme care should be exercised during the reinstallation operation to avoid tripping the fire extinguisher control system (see 3.1.23).

6.3 Forms. A copy of the "Equipment Log Book" and all required forms will be furnished to the contractor by the Government at least 30 days before shipment of the equipment as required by the contract delivery schedule (see 3.1.19).

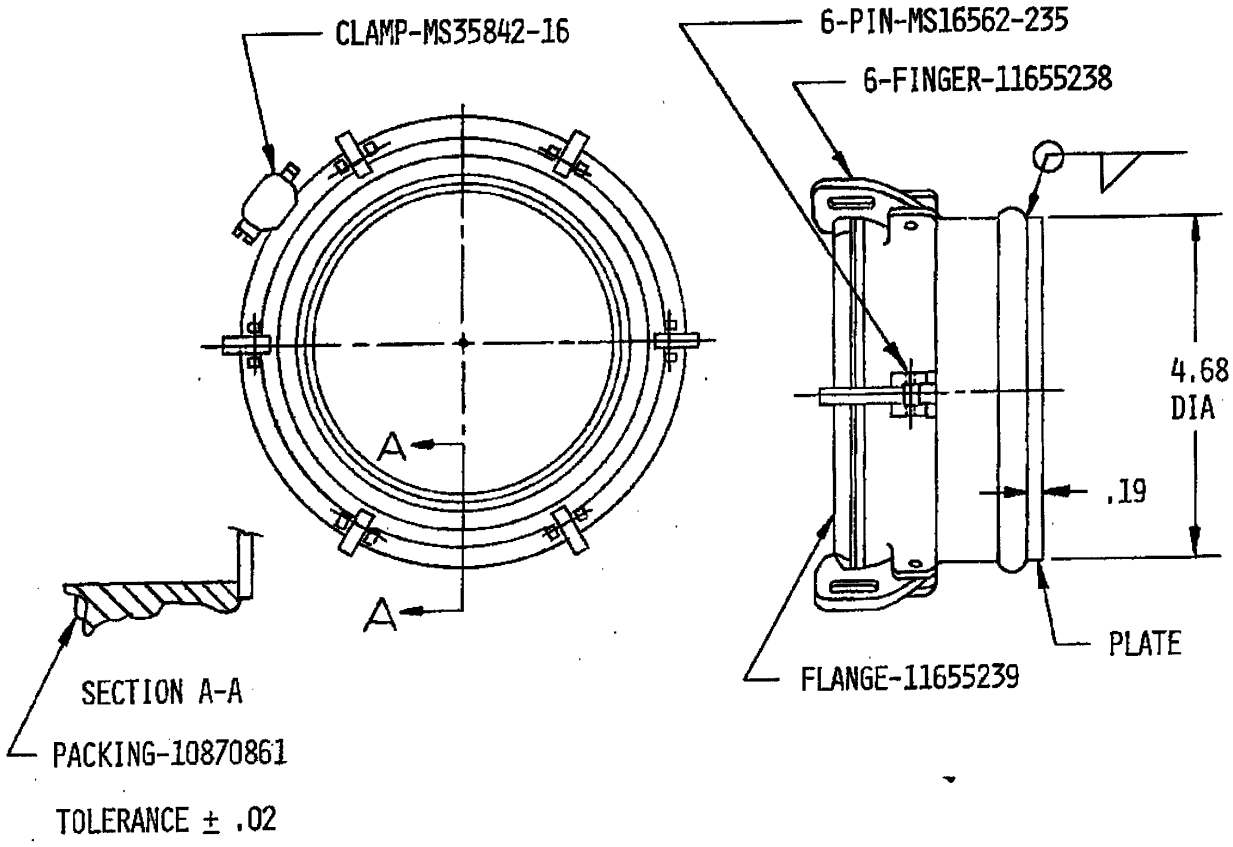


FIGURE A1. Turbocharger air inlet restrictor cover (sheet 1 of 2).

ATPD 2242

REQUIREMENTS

MATERIALS:

-Flange, Fingers, Pins, Clamp, and Packing: Requirements as specified on Army and Military Standard drawings indicated on SH 1.

-Plate: Aluminum plate, ASTM B241, B221, or B308, as applicable.

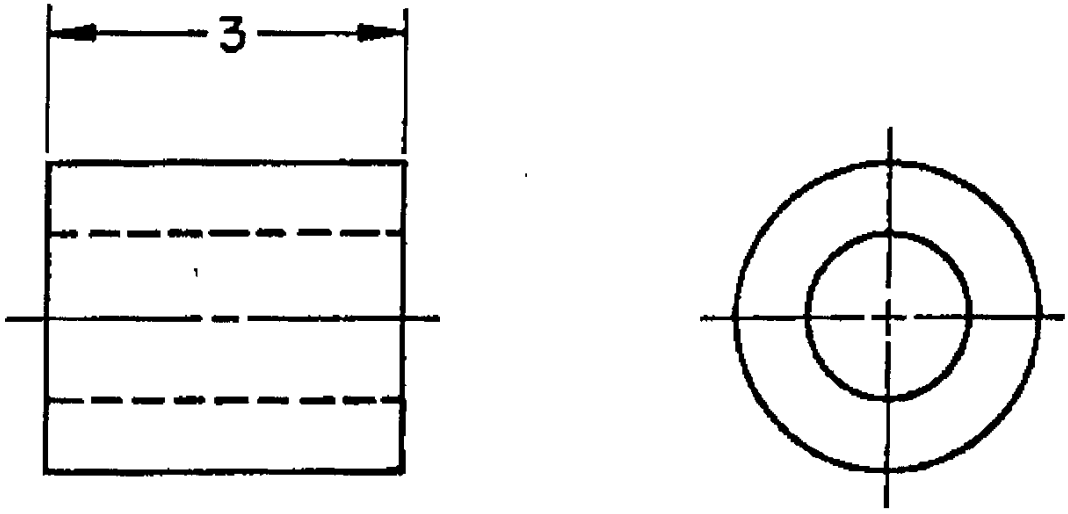
WELDING:

-Weld Plate to Flange per standard manufacturer's practices. Use aluminum filler conforming to AWS A5.10. Air-tight joint required.

BONDING:

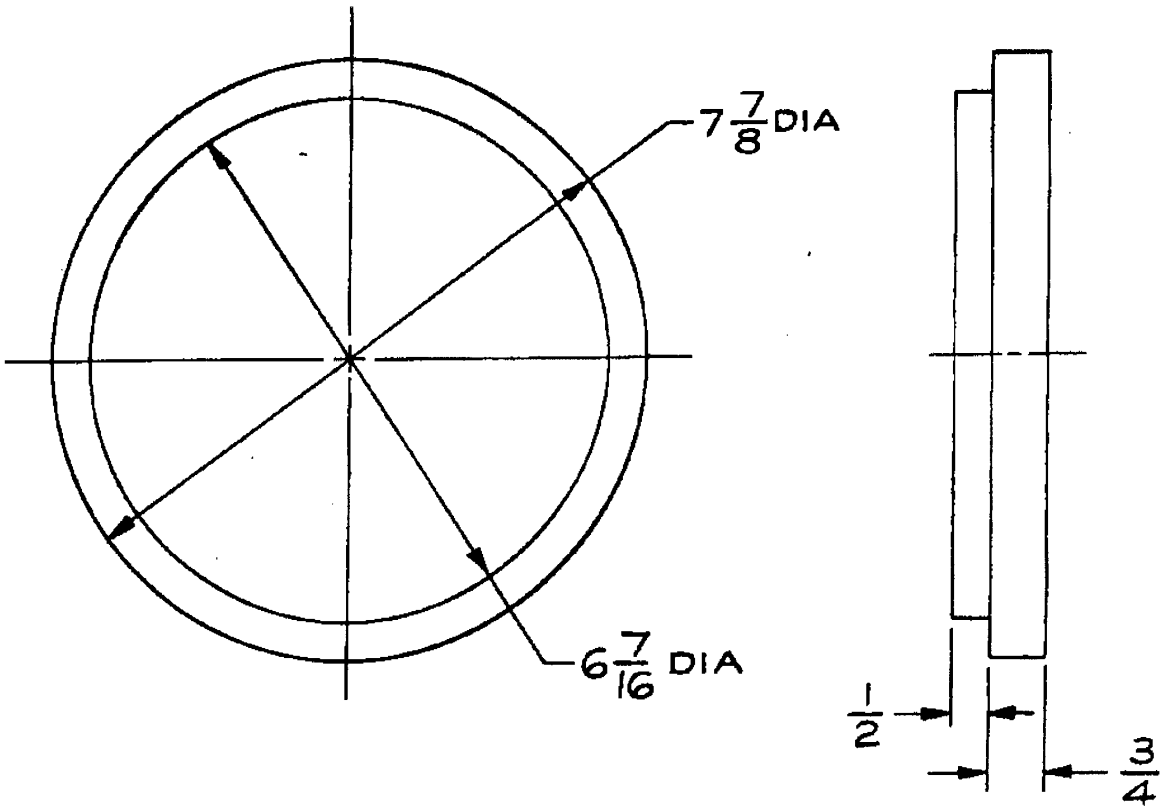
-Bond Packing to Flange with adhesive MMM-A-1617, Type III. Cured bond to withstand 5-lb pull per inch of width perpendicular to bonded surface.

FIGURE 1. Turbocharger air inlet restrictor cover.



MATERIAL:
STEEL TUBING, MT1010 TO MTX 1020
ASTM A513 OR ASTM A519
2 ½ O.D. X 0.563 WALL

FIGURE A3. Liner, tie down rod (2 reqd.).



MATERIAL:
WOOD, GROUP II OR III
SPEC. MIL-C-104
OPTIONAL:
PLYWOOD,
SPEC. A-A-55057
PART TO BE COVERED WITH ALUMINUM FOIL, SPEC QQ-A-1876

FIGURE B1. Plug, muzzle.

INSTALLATION SCREENS IN BRAKE ACCESS OPENING

ITEM NO.	FIG. NO.	NO REQ'D	NAME	MAT'L	STOCK SIZE
1	B5	2	SCREEN	STEEL	GALVANIZED WIRE .047 DIA. 4x4 MESH
2	B3	24	WASHER	STEEL	3/8 I.D. PLAIN
3	B3	12	SPACER	STEEL TUBING	9/16 O.D. x .083 WALL x 7/8 LB

INSTALLATION SCREENS IN FUEL TANK ACCESS OPENING

ITEM NO.	FIG. NO.	NO REQ'D	NAME	MAT'L	STOCK SIZE
4	B5	2	SCREEN	STEEL	GALVANIZED WIRE .047 DIA. 4x4 MESH
5	B4	8	SPACER	STEEL TUBING	11/16 O.D. x .065 WALL x 9/16 LG
6	B4	16	WASHER	STEEL	1/2 I.D. PLAIN

FIGURE B2. Installation screen items.

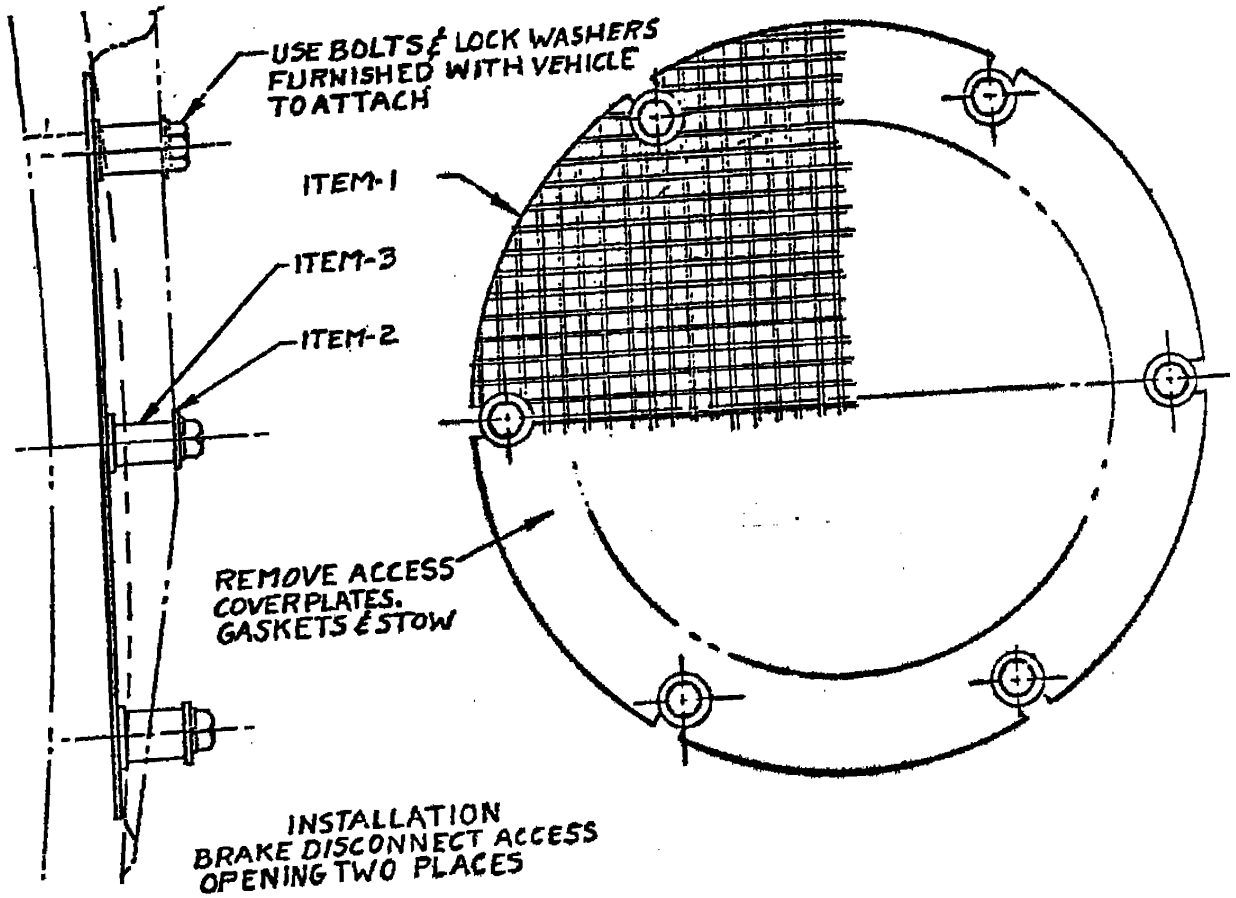
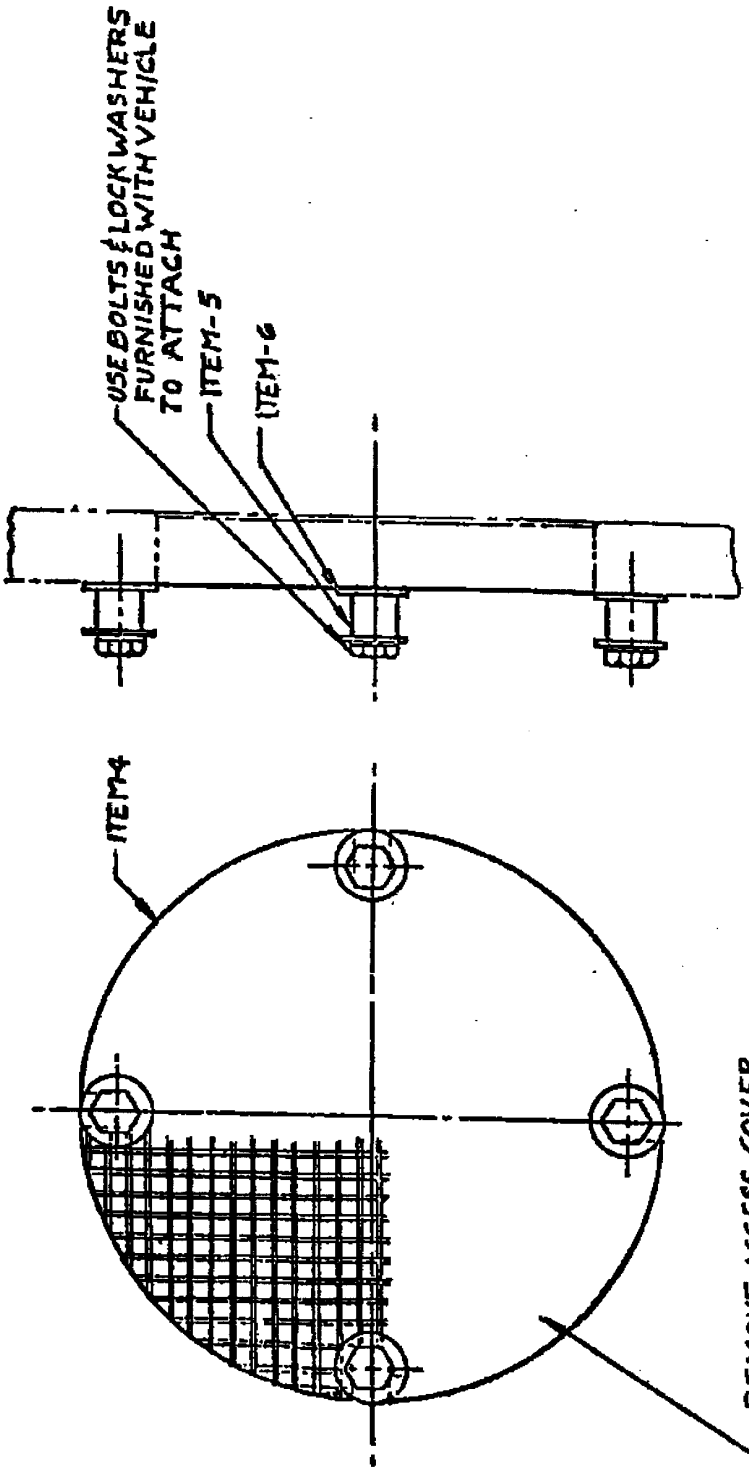


FIGURE B3. Washer.



INSTALLATION
FUEL TANK DRAIN ACCESS
OPENING TWO PLACES
FIGURE B4

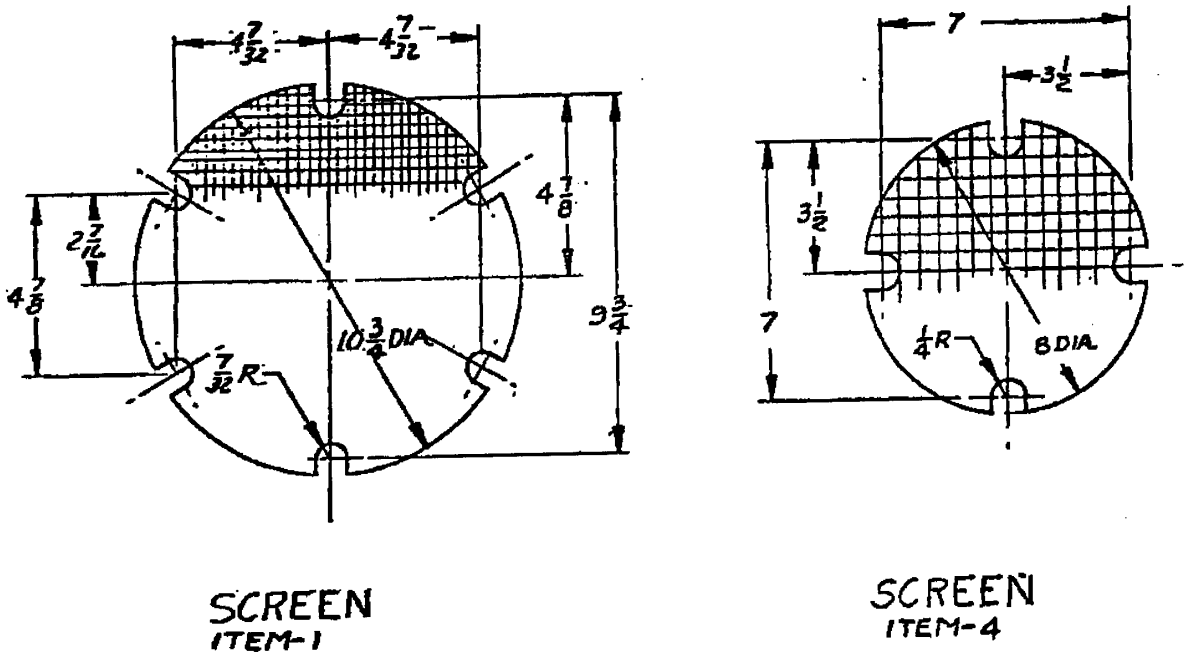
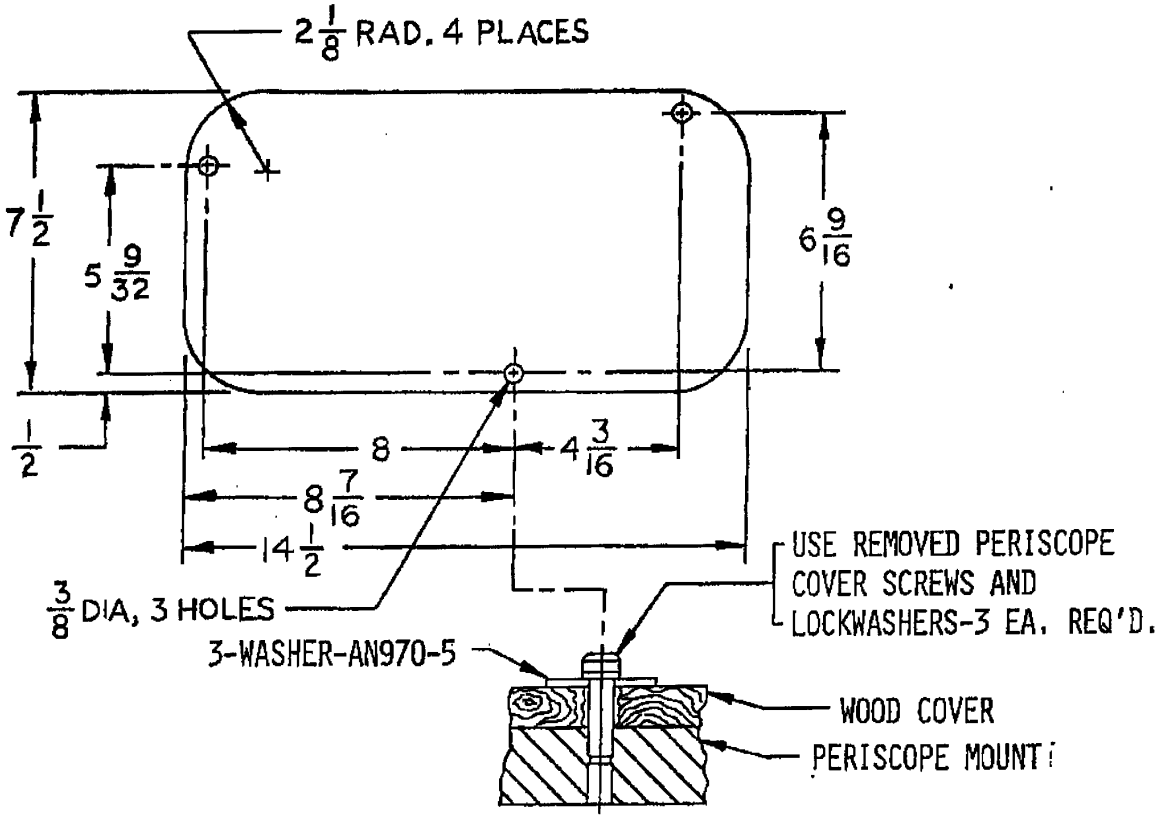
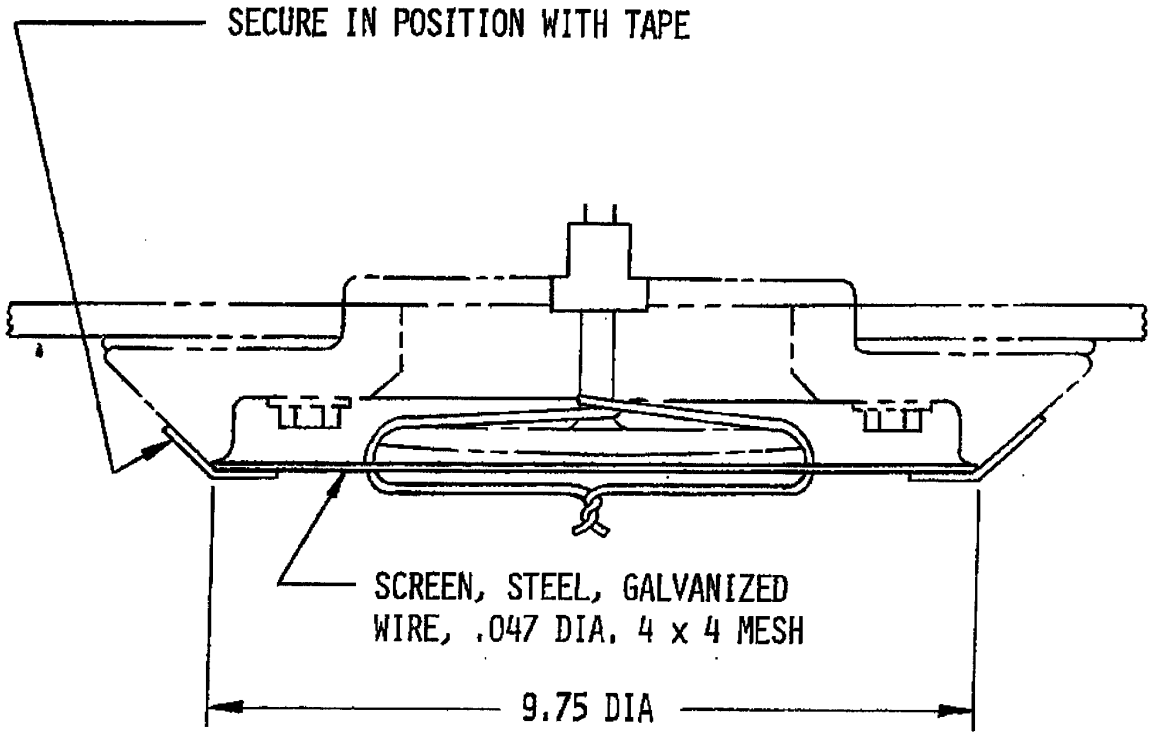

4 7/32
4 7/32
4 7/8
2 7/16
4 7/8
9 3/4
10 3/4 DIA
7/32 R
SCREEN
ITEM-1
7
3 1/2
3 1/2
7
1/4 R
8 DIA
SCREEN
ITEM-4

FIGURE B5



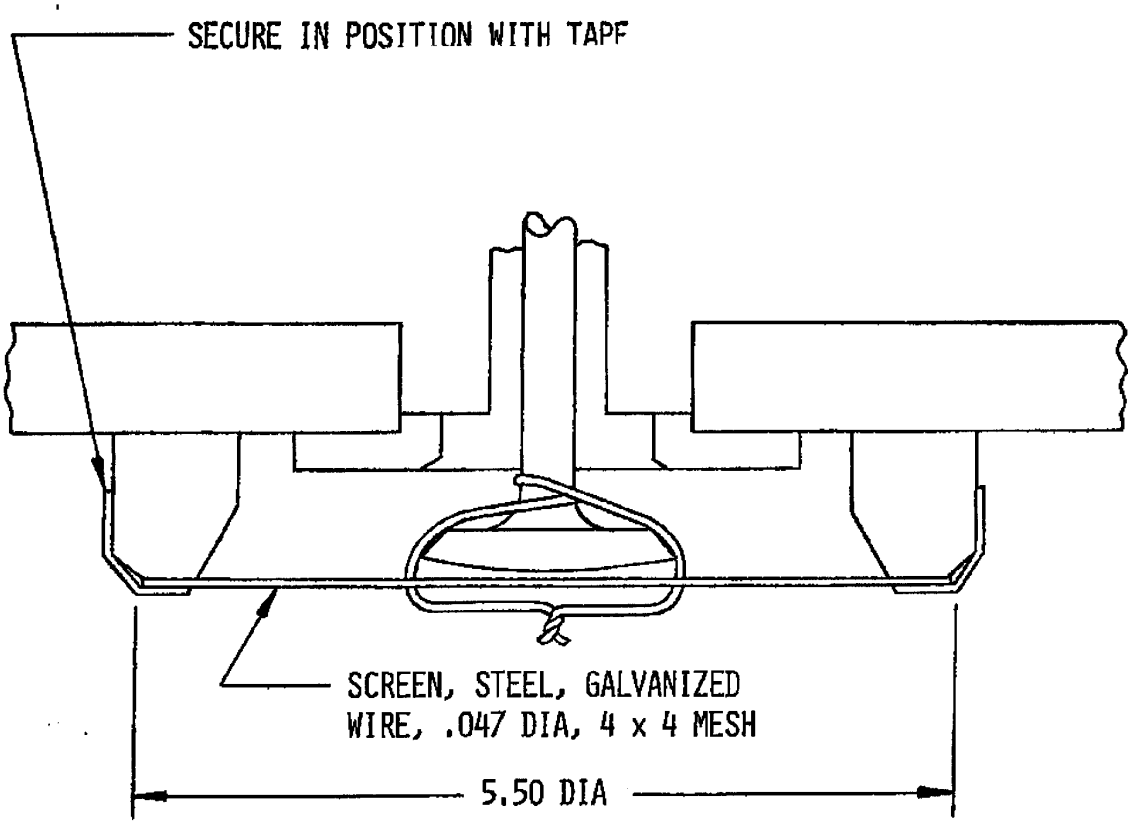
MATERIAL: PLYWOOD, A-A-55057, EXTERIOR TYPE, ½ THICK

FIGURE B6. Cover, periscope opening, cupola and attaching hardware.



TAPE SHALL CONFORM TO TYPE IV, ASTM D5486 AS REQUIRED
OPTIONAL: SECURE AS SHOWN WITH LOCKWIRE, 16 GA, CONFORMING TO ASTM A641, ASTM A809, ASTM A818, OR ASTM A853, AS APPLICABLE.

FIGURE B7. Installation, driver compartment drain valve screen.



TAPE SHALL CONFORM TO TYPE IV, ASTM D5486 AS REQUIRED
OPTIONAL: SECURE AS SHOWN WITH LOCKWIRE, 16 GA, CONFORMING TO ASTM A641, ASTM A809, ASTM A818, OR ASTM A853, AS APPLICABLE.

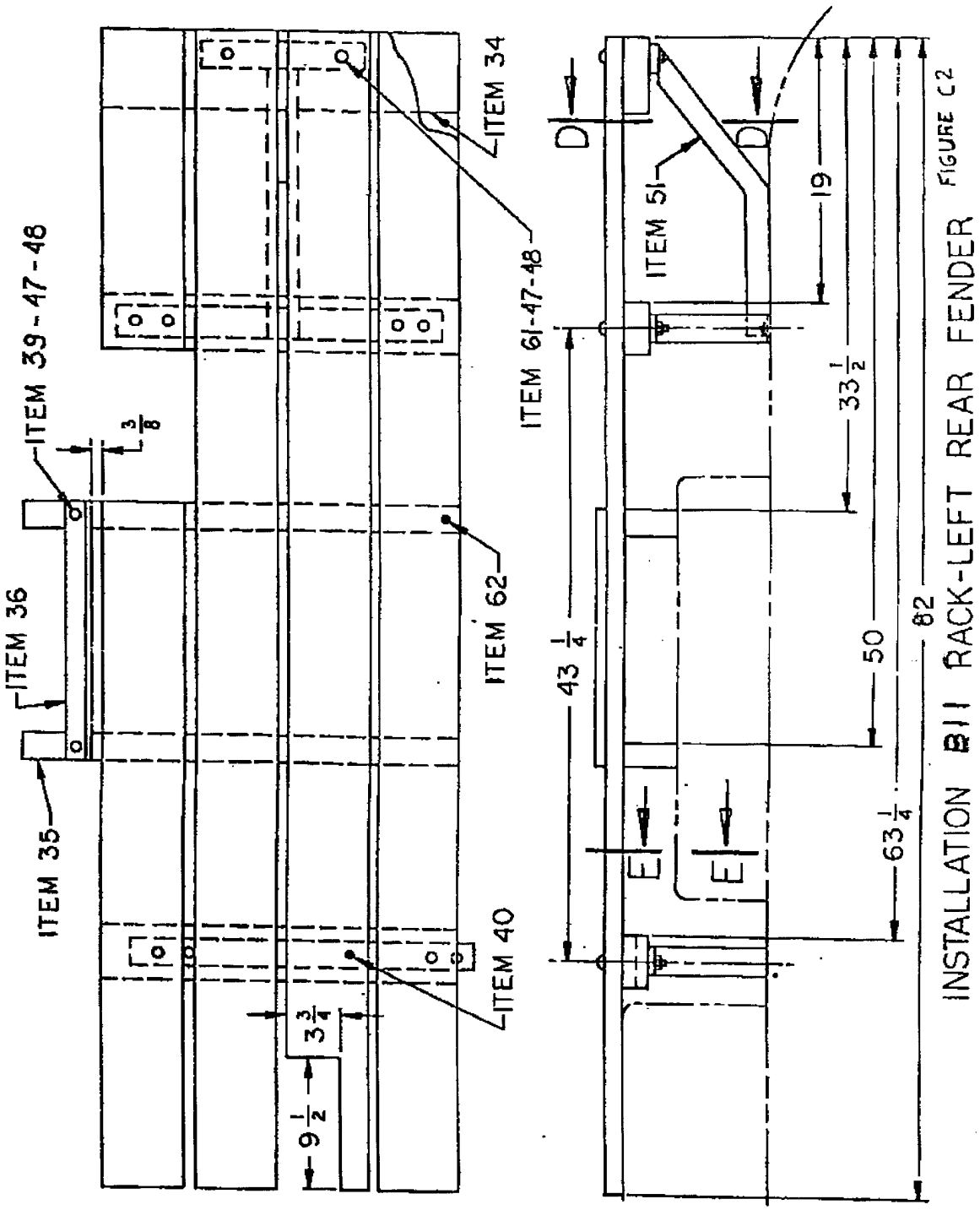
FIGURE B8. Installation, driver compartment drain valve screen.

INSTALLATION, B11: RACK
LEFT REAR FENDER

MATERIAL
WOOD, GROUP II OR III
SPEC MIL-C-104

ITEM NO.	NO. REQ'D PER RACK	NAME	MAT'L	STOCK SIZE
30	2	BRACKET	STEEL	SEE DETAIL "G"
51	1	BRACKET	*	SEE DETAIL "E"
31	3	MEMBER	*	1 x 6 x 82
32	1	MEMBER	*	1 x 6 x 22 ½
33	1	MEMBER	*	1 x 6 x 48 ½
34	1	MEMBER	*	2 x 6 x 25 ¼
35	2	MEMBER	*	SEE DETAIL "K"
36	1	BRACE	STEEL	SEE DETAIL "J"
37	1	MEMBER	*	2 x 4 x 25 ¼
38	1	MEMBER	*	SEE DETAIL "H"
38	2	SCREW	---	MS90725-70
61	8	BOLT-CARRIAGE	---	MS35751-79
47	11	WASHER-FLAT	---	MS27183-14
48	11	NUT LOCK	---	MS16228
62	24	NAIL	---	16dCC
40	24	NAIL	---	9dCC
41	1	BOLT-CARRIAGE	---	MS35751-75
64	1	SCREW-FLAT HD.	---	MS35191-321
65	1	WASHER-LOCK	---	MS122034
66	1	NUT LOCK	---	MS16228

FIGURE C1. Items, rack, left rear fender.



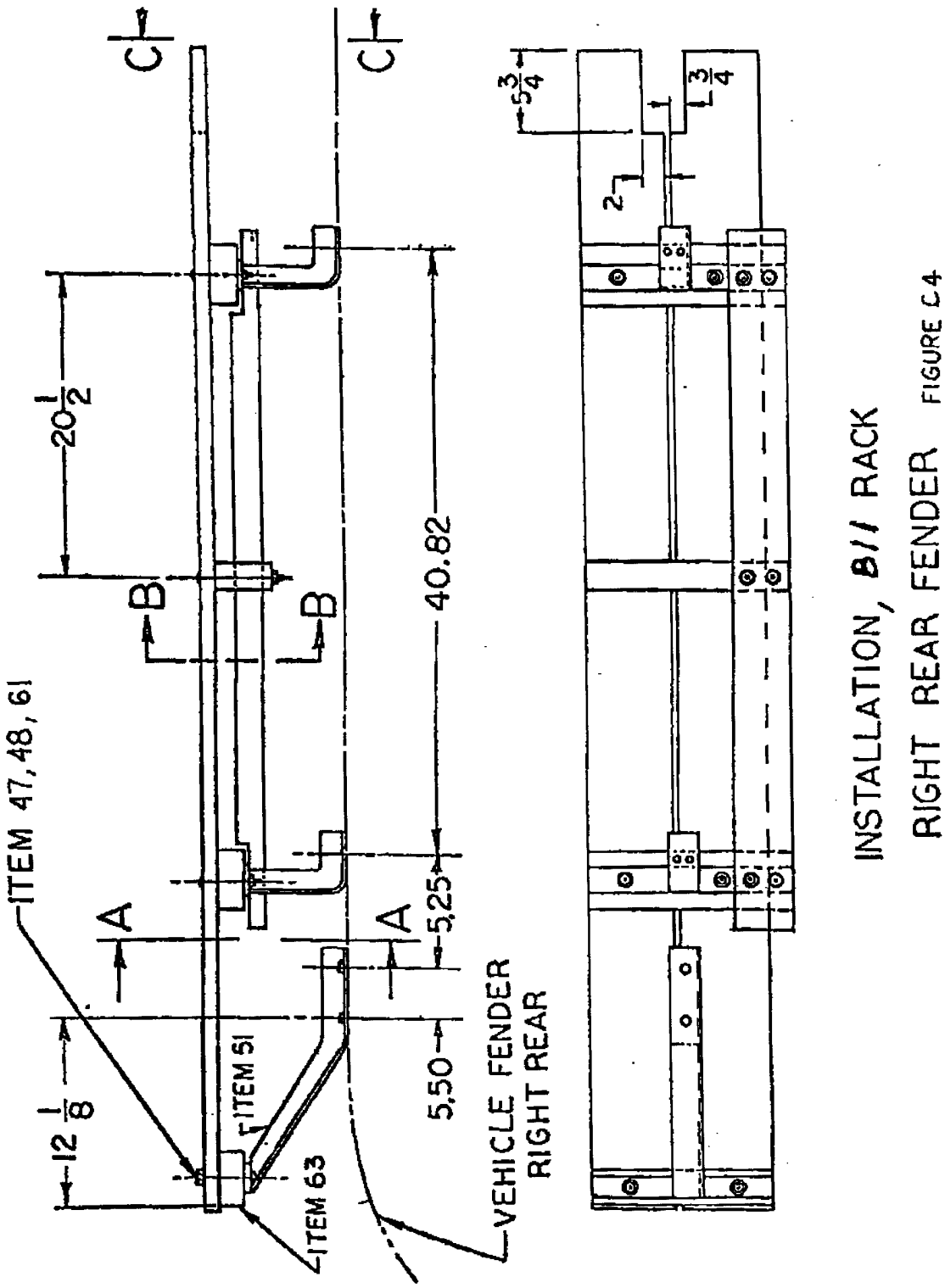
INSTALLATION 811 RACK-LEFT REAR FENDER FIGURE C2

INSTALLATION B11 RACK
REAR FENDER

ITEM NO.	NO. REQ'D PER RACK	NAME	MAT'L	STOCK SIZE
50	2	BRACKET	STEEL	SEE DETAIL "F
51	1	BRACKET	STEEL	SEE DETAIL "E"
52	2	MEMBER	*	2 x 4 x 12 ½
53	1	MEMBER	*	2 x 4 x 12 ½
54	2	MEMBER	*	1 x 6 x 78
55	1	MEMBER	*	2 x 4 x 44
56	3	BOLT-CARRIAGE	---	MS35751-81
47	12	WASHER-FLAT	---	MS27183-14
48	12	NUT-LOCK	---	MS16228
59	3	BOLT-CARRIAGE	---	MS35751-83
60	4	BOLT-CARRIAGE	---	MS35751-78
61	2	BOLT-CARRIAGE	---	MS35751-79
62	7	NAIL	---	16dCC
63	1	MEMBER	*	2 x 4 x 11

MATERIAL,
WOOD, GROUP II OR III, SPEC MIL-C-104

FIGURE C3. Items, installation, rack, rear fender.



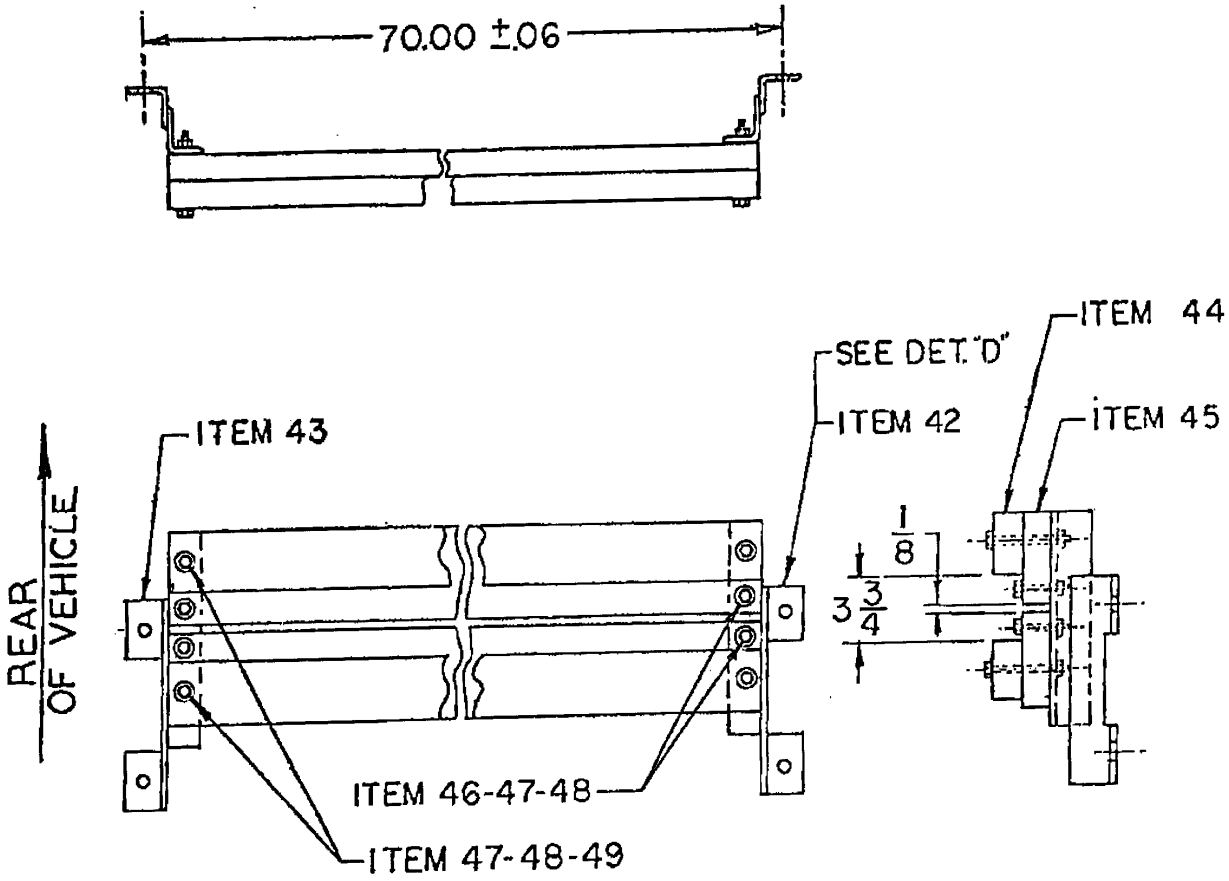
INSTALLATION, B11 RACK
RIGHT REAR FENDER FIGURE C4

INSTALLATION, B11 RACK
REAR DECK SADDLE ASS'Y

ITEM NO.	NO. REQ'D PER RACK	NAME	MAT'L	STOCK SIZE
42	1	BRACKET (LEFT)	STEEL	SEE DETAIL "D"
43	1	BRACKET (RIGHT)	STEEL	SEE DETAIL "D"
44	2	#5 MEMBER	*	2 x 4 x 67
45	2	#6 MEMBER	*	2 x 4 x 67
46	4	SCREW	---	MS90725-68
47	16	FLAT WASHER	---	MS27183-14
48	8	LOCK NUT	---	MS16228
49	4	SCREW	---	MS907-76

MATERIAL:
WOOD, GROUP II OR III, SPEC MIL-C-104

FIGURE C5. Items, installation, rack, rear deck saddle assembly.



INSTALLATION, B11 RACK
REAR DECK SADDLE ASS'Y

FIGURE C 6

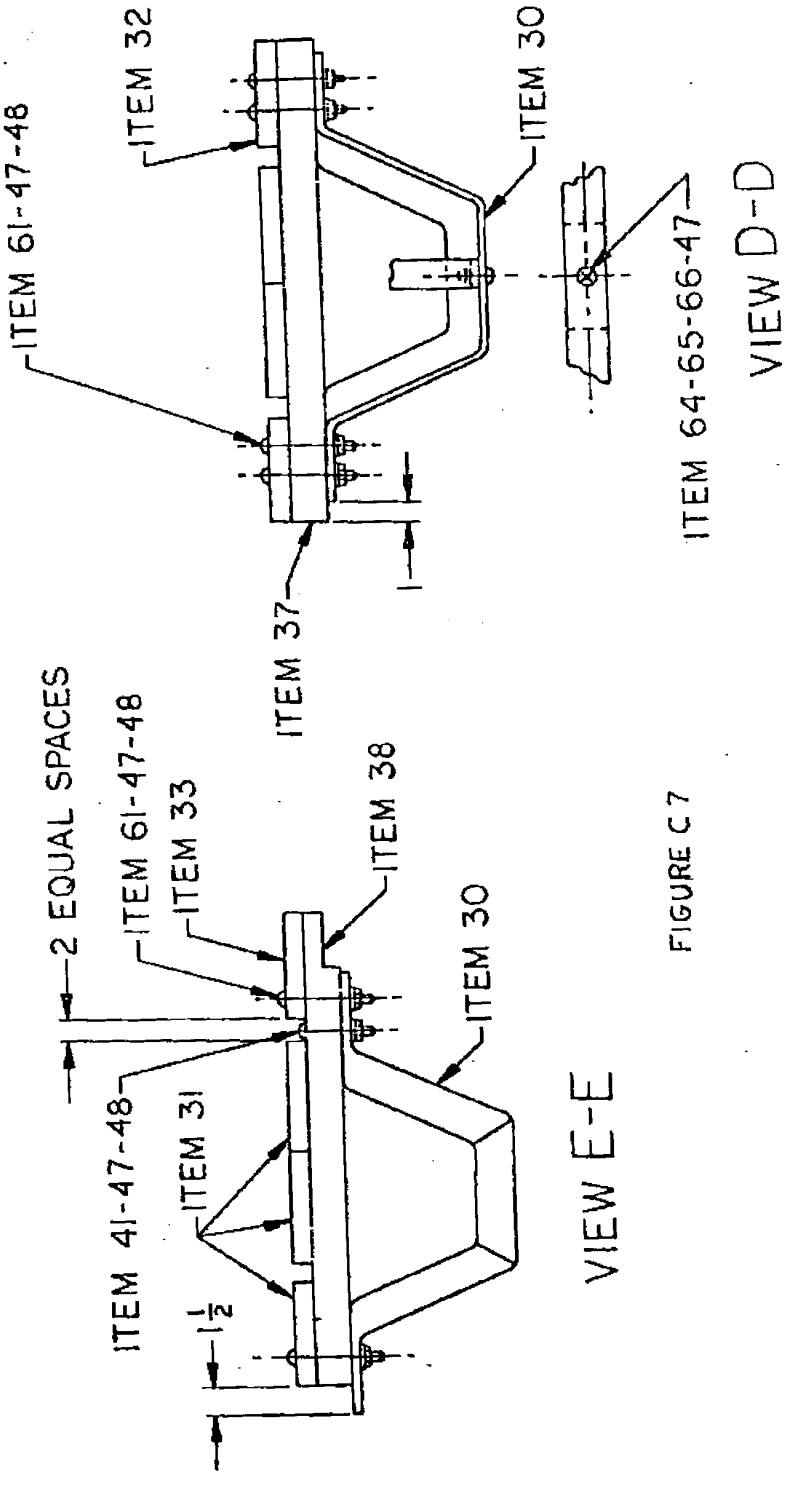

ITEM 61-47-48
ITEM 32
ITEM 30
ITEM 64-65-66-47
VIEW D-D
ITEM 37
2 EQUAL SPACES
ITEM 61-47-48
ITEM 33
ITEM 38
ITEM 30
ITEM 41-47-48
ITEM 31
1 1/2
VIEW E-E

FIGURE C 7

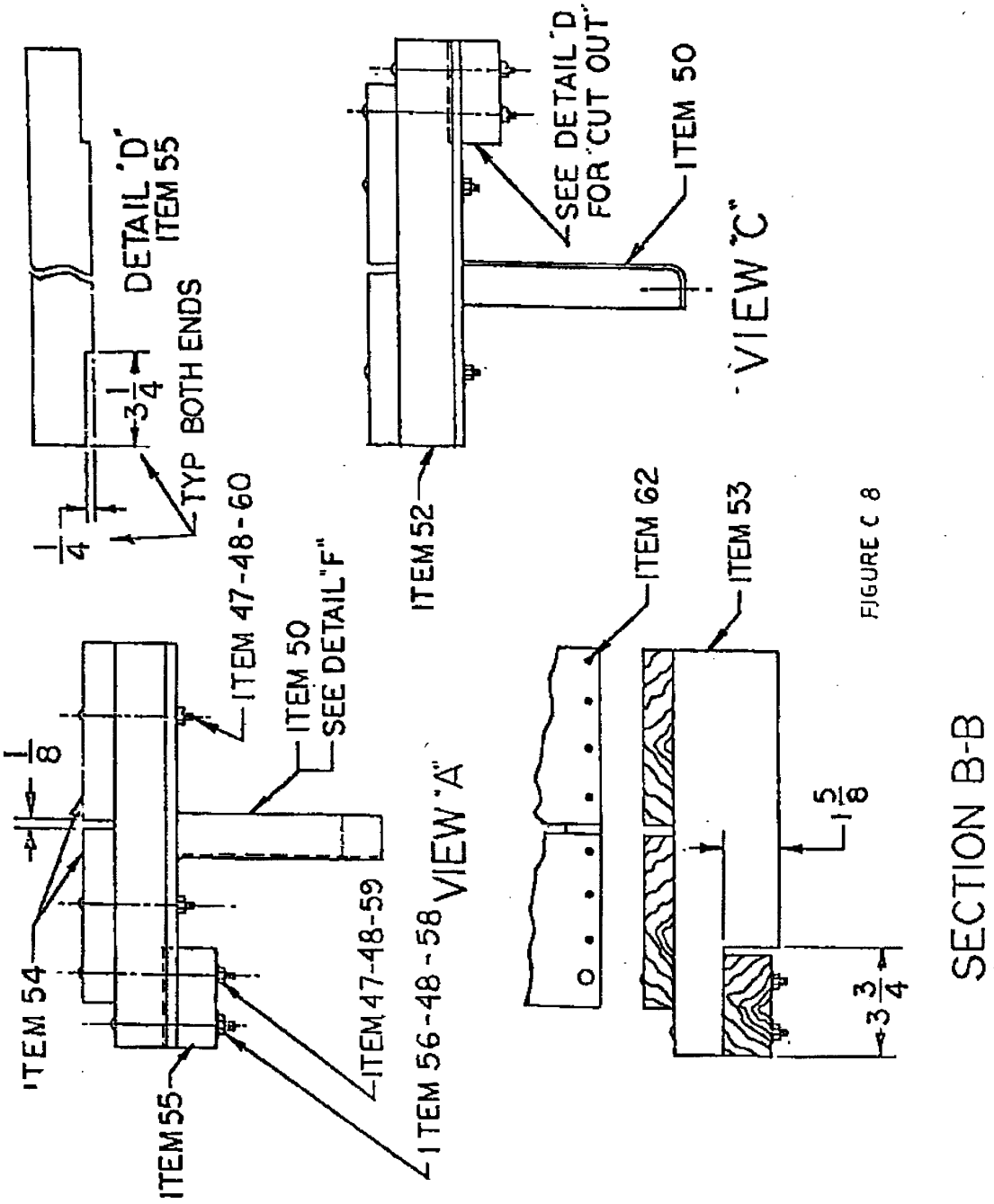
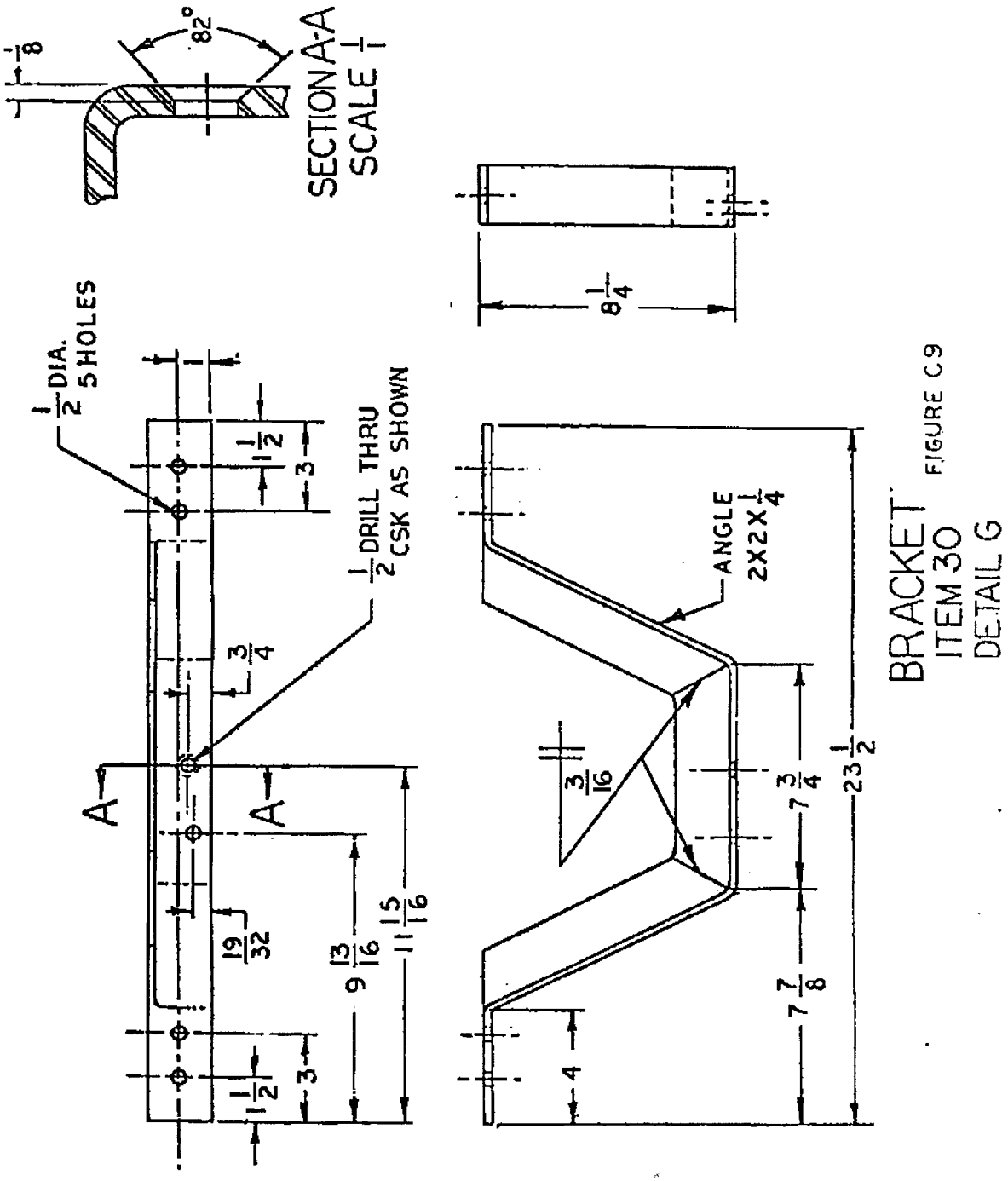

DETAIL 'D'
ITEM 55
TYP BOTH ENDS
3 1/4
1/4
ITEM 47-48-60
ITEM 50
SEE DETAIL "F"
1/8
ITEM 54
ITEM 55
ITEM 47-48-59
ITEM 56-48-58
VIEW "A"
ITEM 52
SEE DETAIL 'D FOR 'CUT OUT'
ITEM 50
VIEW "C"
ITEM 62
ITEM 53
1 5/8
3 3/4
SECTION B-B

FIGURE C 8


SECTION A-A
SCALE 1/1
82°
1/8
8 1/4
1/2 DIA. 5 HOLES
1/2 DRILL THRU CSK AS SHOWN
ANGLE 2X2X1/4
BRACKET ITEM 30 DETAIL G
FIGURE C-9

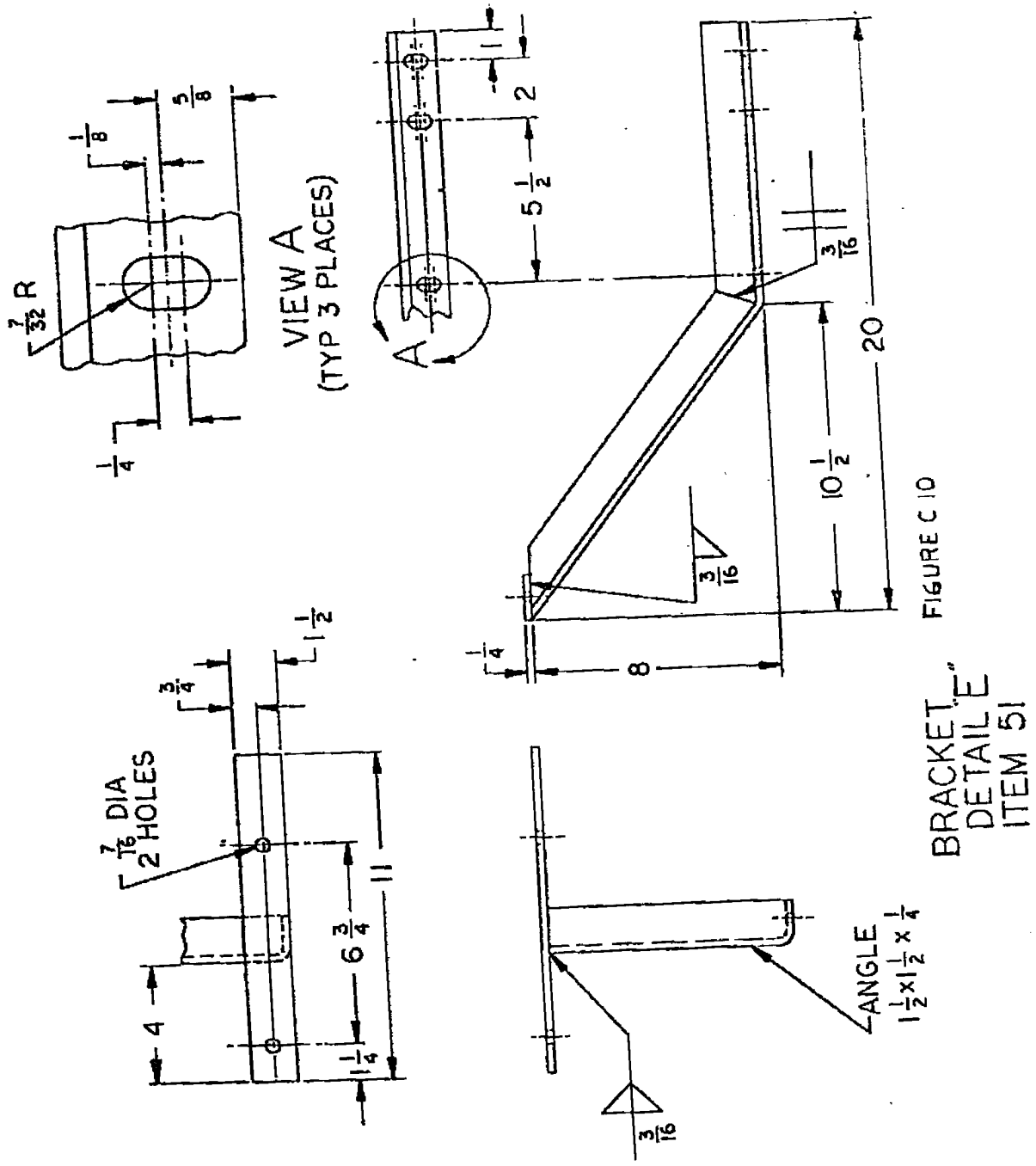
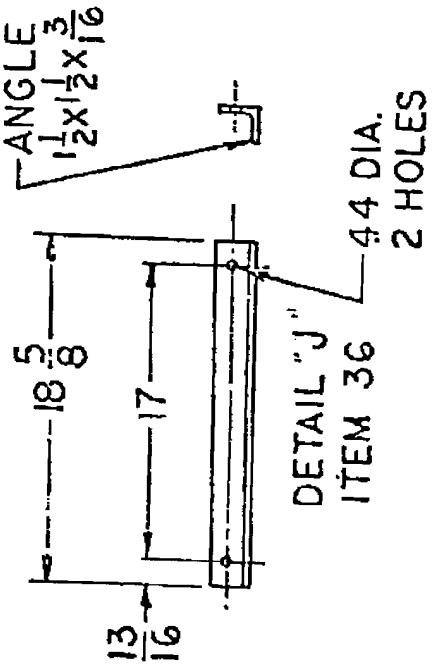
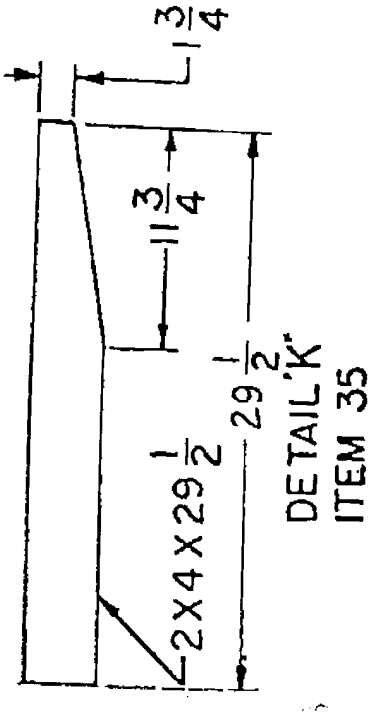

VIEW A
(TYP 3 PLACES)
A
BRACKET "E"
DETAIL "E"
ITEM 51
ANGLE
7/16 DIA
2 HOLES

FIGURE C 10


ANGLE
1 1/2 X 1 1/2 X 3/16
18 5/8
17
13/16
.44 DIA.
2 HOLES
DETAIL "J"
ITEM 36


1 3/4
11 3/4
29 1/2
2 X 4 X 29 1/2
DETAIL "K"
ITEM 35

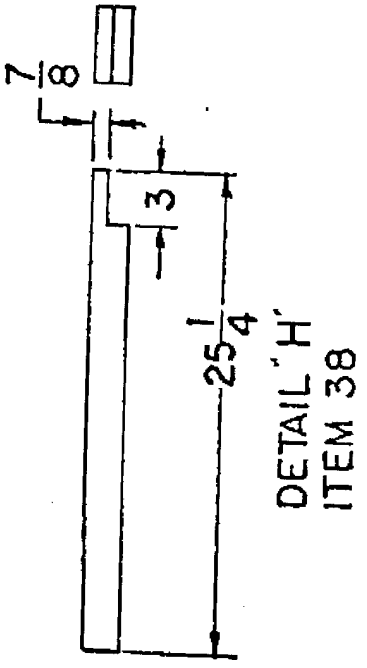
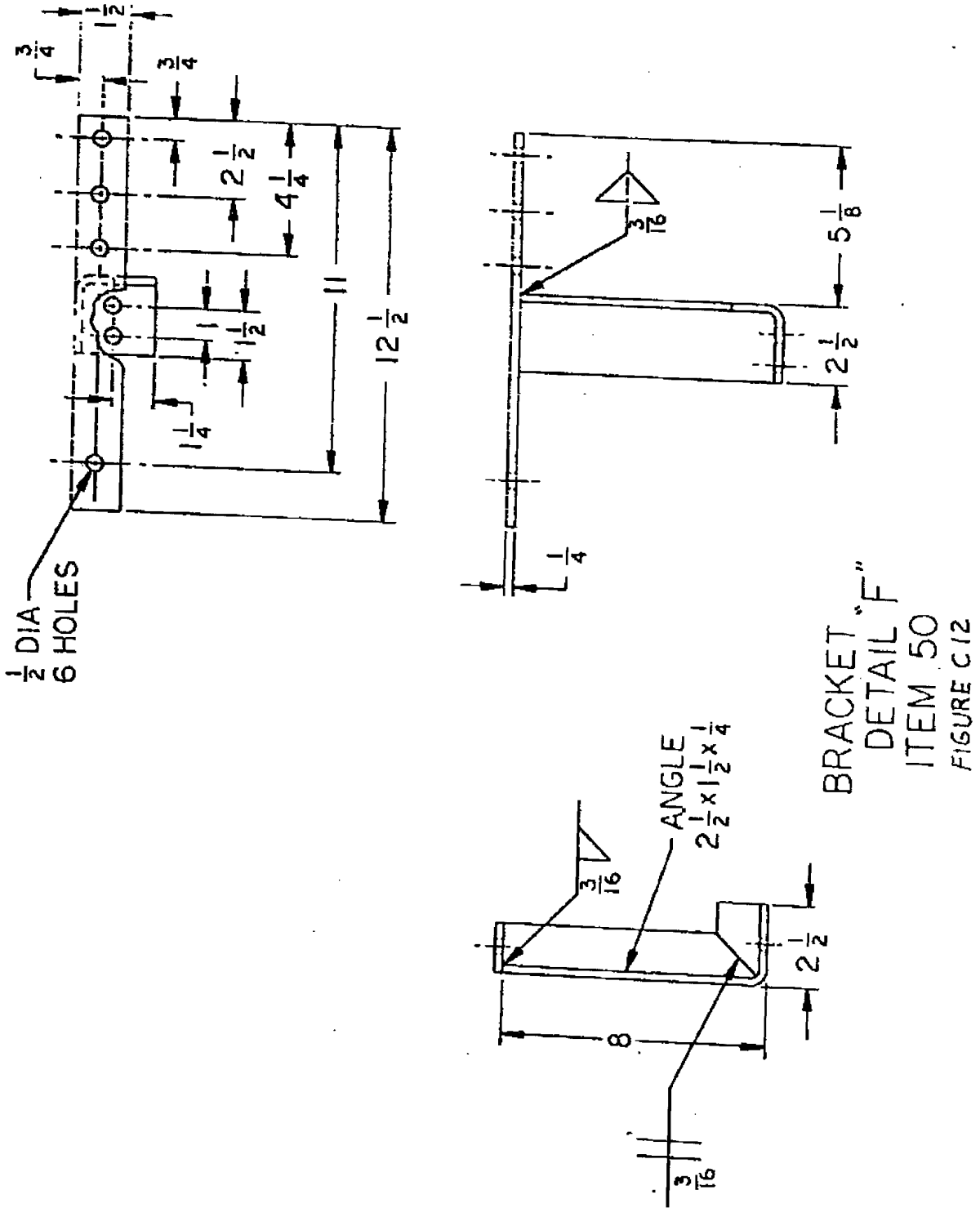

7/8
3
25 1/4
DETAIL "H"
ITEM 38

FIGURE C11



BRACKET "F"
DETAIL
ITEM 50
FIGURE C12

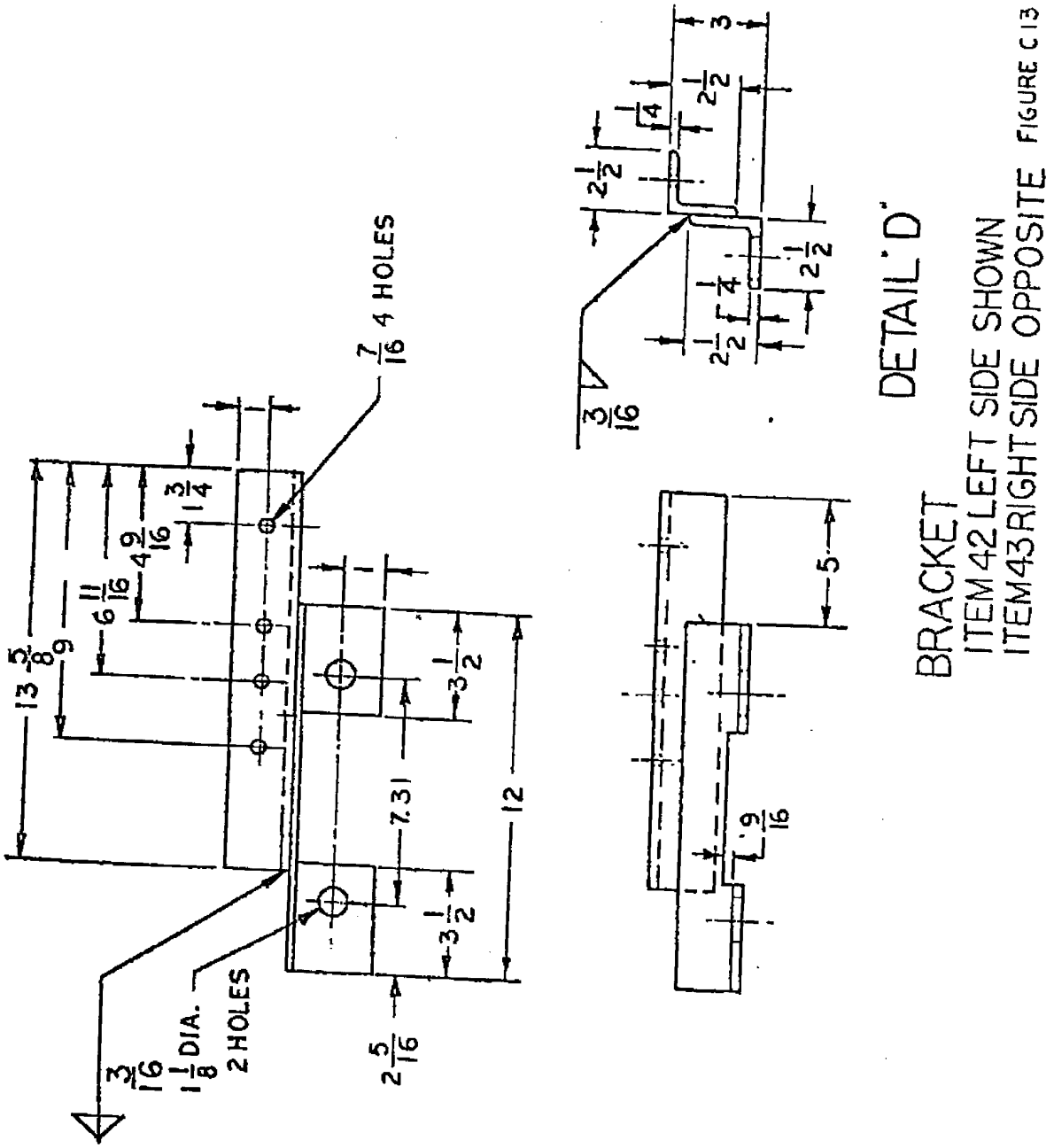
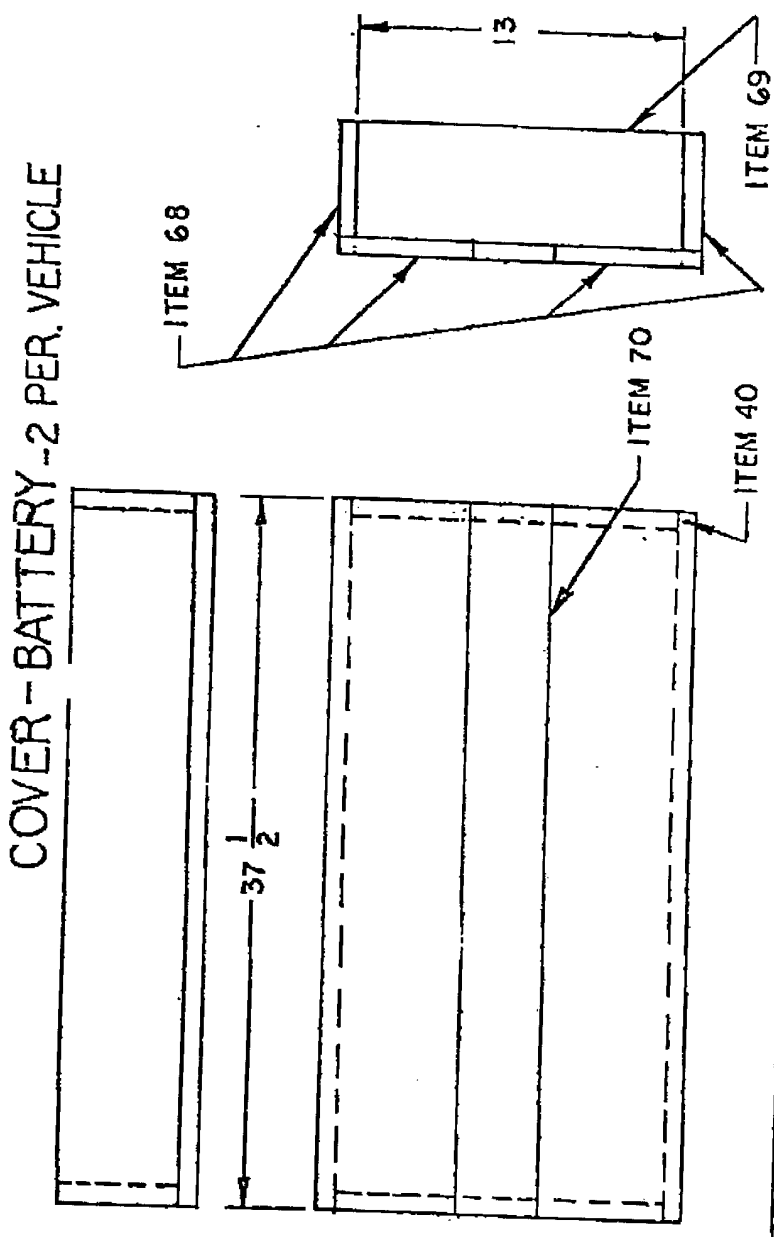

7/16 4 HOLES
13 5/8
6 11/16
4 9/16
1 3/4
1
3 1/2
7.31
12
3 1/2
2 5/16
3/16
1 1/8 DIA.
2 HOLES
5
9/16
3/16
2 1/2
1/4
3
DETAIL 'D'
BRACKET
ITEM 42 LEFT SIDE SHOWN
ITEM 43 RIGHT SIDE OPPOSITE

FIGURE C13



ITEM	NO. REQ'D PER BOX	NAME	MAT'L.	STOCK SIZE
68	4	MEMBER	*	1X6X37 1/2
69	2	MEMBER	*	1X6X13
70	1	MEMBER	*	1X4X37 1/2
40	60	NAIL	—	9dCC

TOLERANCE $+\frac{1}{4}$ INCH

* MATERIAL: WOOD-GROUP II OR III SPEC MIL-C-104

FIGURE C 14

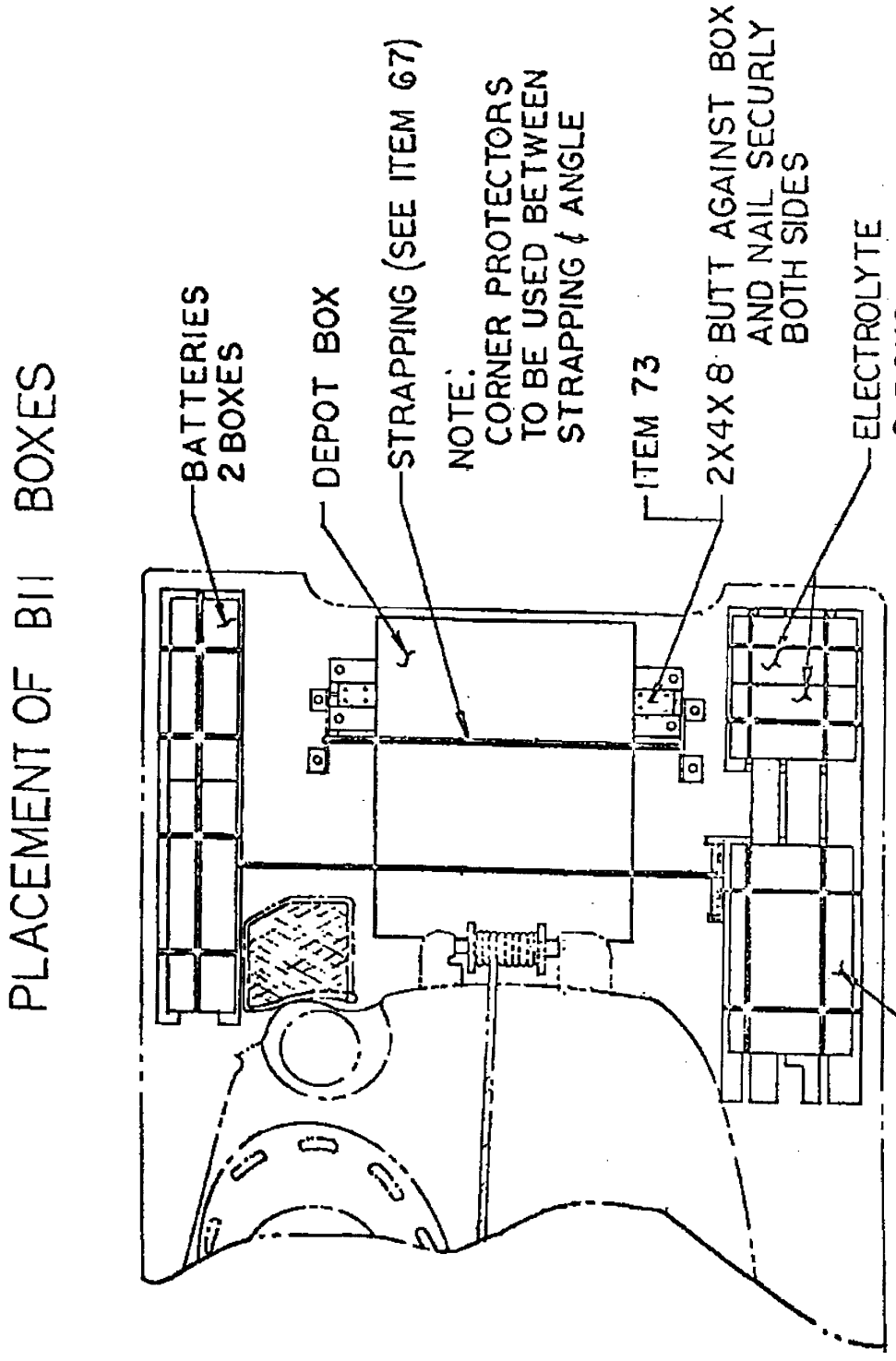
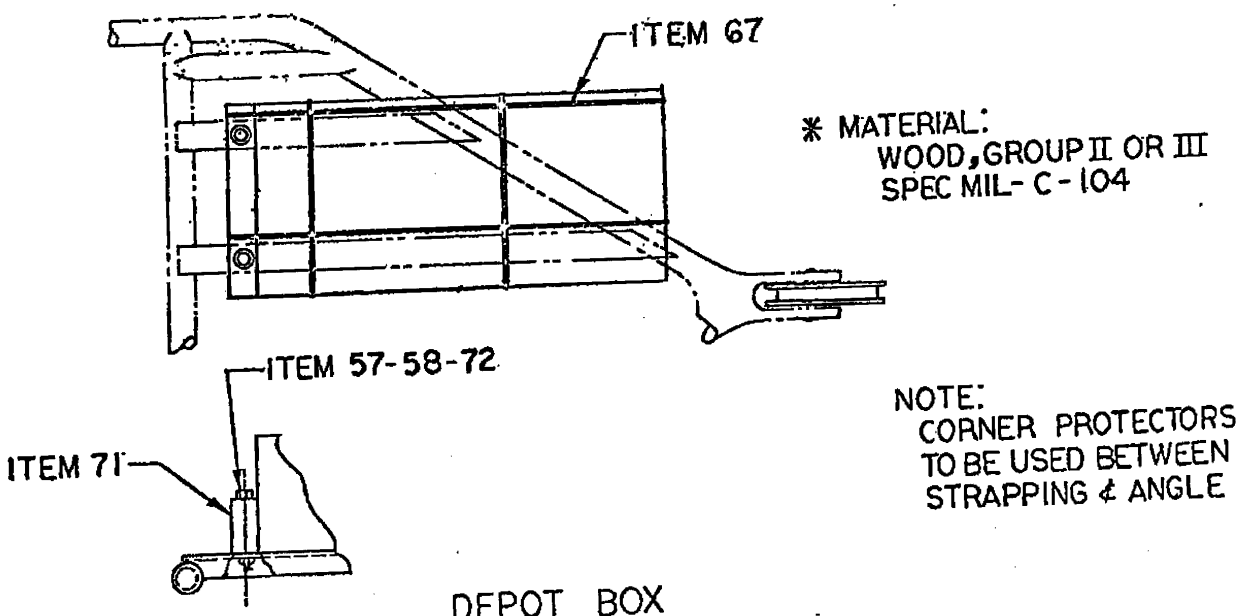

PLACEMENT OF BII BOXES
BATTERIES 2 BOXES
DEPOT BOX
STRAPPING (SEE ITEM 67)
NOTE: CORNER PROTECTORS TO BE USED BETWEEN STRAPPING & ANGLE
ITEM 73
2X4X8 BUTT AGAINST BOX AND NAIL SECURLY BOTH SIDES
ELECTROLYTE 2 BOXS
MANUFACTURE BOX

FIGURE C 15

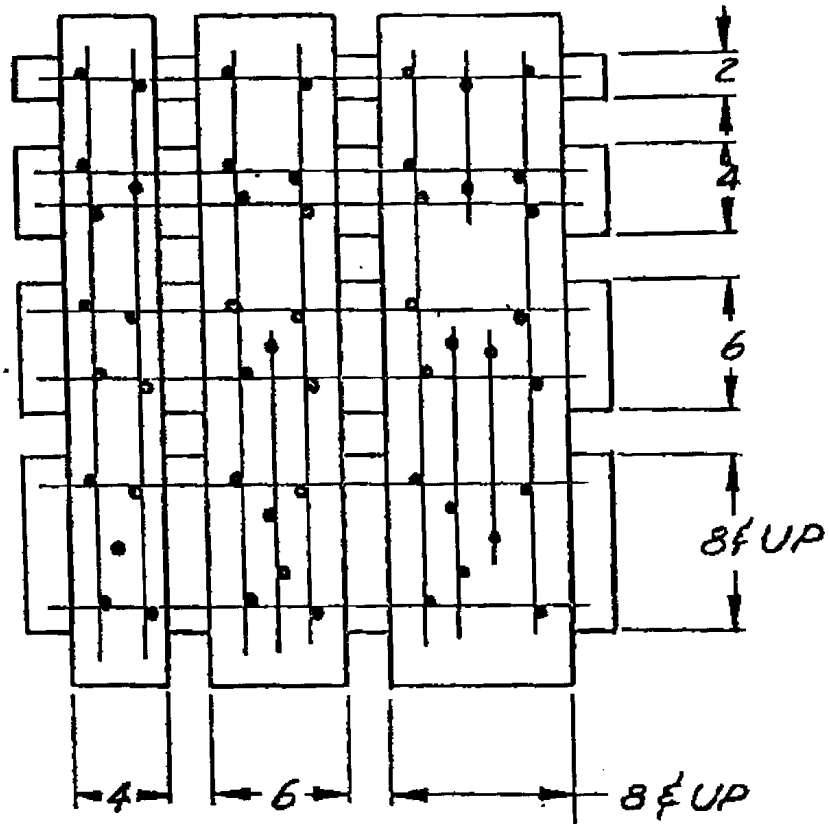
Item	No. req'd per pack	Name	Matl	Stock Size
71	1	Member	*	2 X 4 X 24 ½
57	2	Screw	---------	MS 90725-125
58	4	Washer-flat	---------	MS 27183-19
72	2	Nut-lock	---------	MS 17829-8C
67	As req'd	Strapping 1 ¼ w	Steel	ASTM D3953



DEPOT BOX
STOWAGE ON "A" FRAME. FIGURE C 16

NAILING SPECIFICATIONS			
NOMINAL WOOD THICKNESS		NAIL SIZE	
NAILING	TO	CLINCHED	HIDDEN
1	1	5d	4dCC
1	2	8d	7dCC
1	4	---	8dCC
1	6	---	8dCC
1	8	---	8dCC
2	2	16d	12dCC
2	4	50d	20dCC
2	6	---	20dCC
2	8	---	20dCC
4 & UP	4 & UP	BOLTED CONSTRUCTION	
FOR GROUP I WOODS, INCREASE NAIL SIZE TO NEXT LARGER SIZE & REDUCE NAIL SPACING BY ¼ INCH.			
FOR GROUP IV WOODS, DECREASE NAIL SIZE TO NEXT SMALLER SIZE & NAIL SPACING MAY BE INCREASED BY ¼ INCH. DRILL LEAD HOLES WHERE NECESSARY TO PREVENT SPLITTING.			

FIGURE C 17. Nailing specifications.



WHEN PIECES ARE NOT AT RIGHT ANGLES A SIMILAR BUT SKEWED PATTERN SHALL BE USED

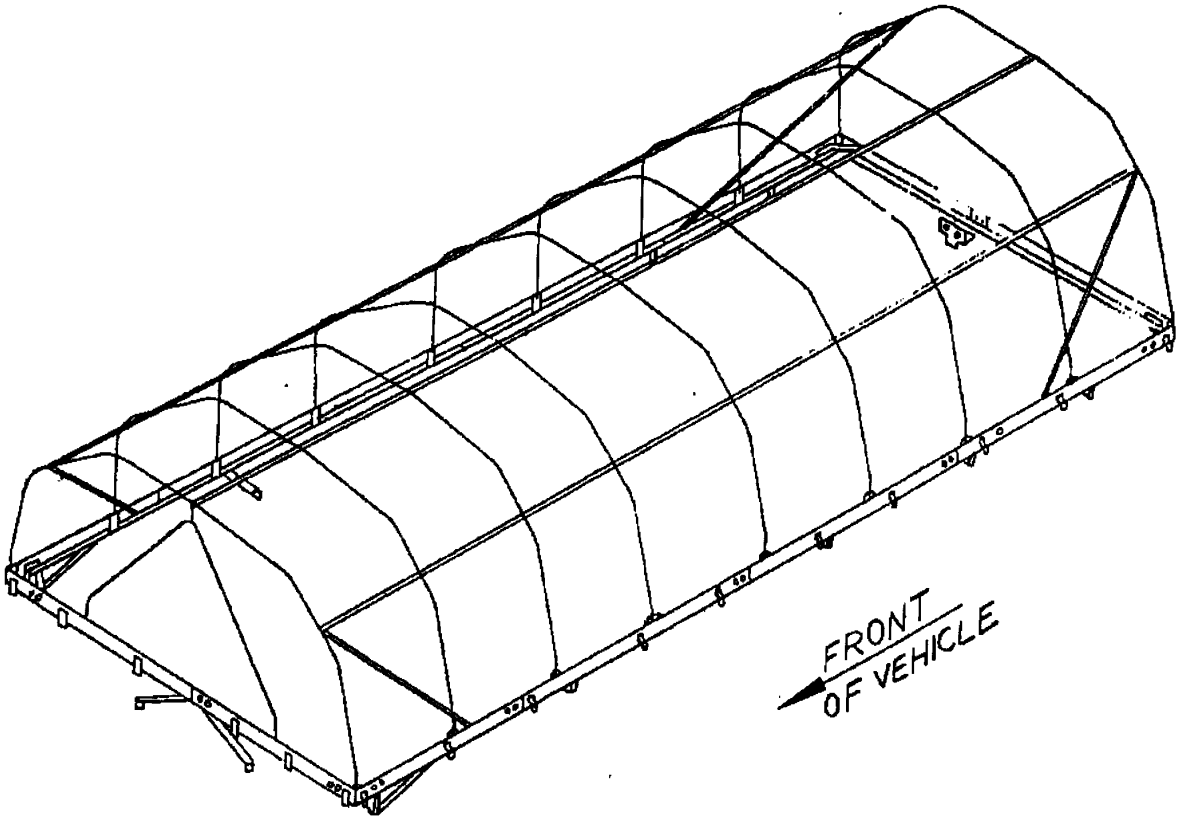
NAILING PATTERNS
(NOMINAL WOOD SIZES)

FIGURE C18

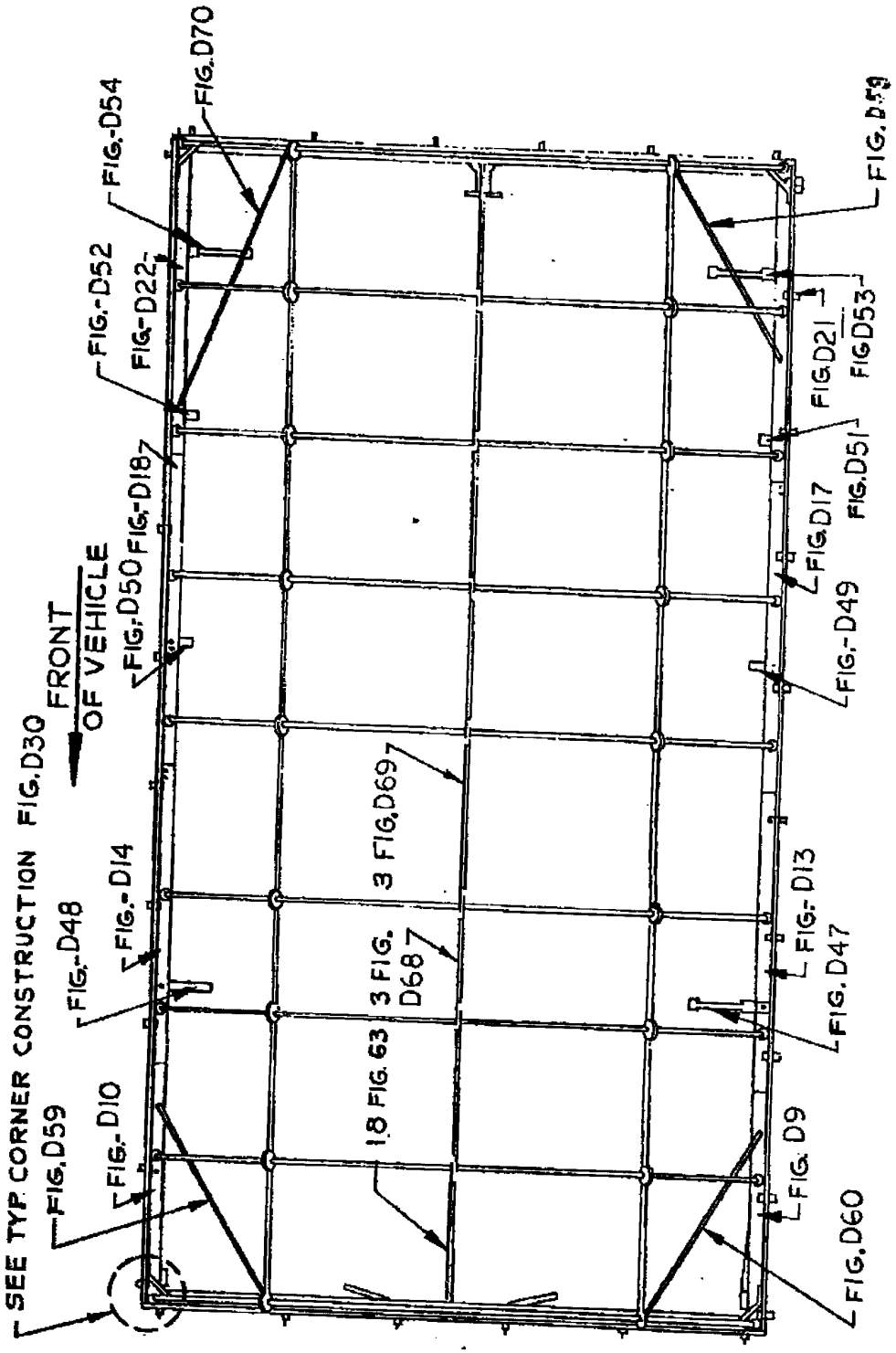
FRAMEWORK AND BASE FOR CLOSURE ON M728 FIGURE D1 SHEET 1 OF 3	
FIG NO.	DESCRIPTION
D2	FRAME ASSEMBLY
D3	PLAN VIEW, FRAME
D4	RIGHT AND LEFT ELEVATION, FRAME-LEFT SIDE SHOWN
D5	FRAME, FRONT ELEVATION
D6	FRAME, REAR ELEVATION
D7	BASE, FRAME
D8	BASE, FRAME
D9	BASE, FRAME ASSEMBLY
D10	BASE, FRAME ASSEMBLY
D11	BASE, FRAME
D12	BASE, FRAME
D13	BASE, FRAME ASSEMBLY
D14	BASE, FRAME ASSEMBLY
D15	BASE, FRAME
D16	BASE, FRAME
D17	BASE, FRAME ASSEMBLY
D18	BASE, FRAME ASSEMBLY
D19	BASE, FRAME
D20	BASE, FRAME
D21	BASE, FRAME ASSEMBLY
D22	BASE, FRAME ASSEMBLY
D23	BASE, FRAME
D24	BASE, FRAME
D25	BASE, FRAME ASSEMBLY
D26	BASE, FRAME ASSEMBLY
D27	ENGAGEMENT PIPE
D28	SPLICE PLATE
D29	TYP. BASE FRAME SPLICE
D30	TYP. CORNER CONSTRUCTION
D31	TUBE, BASE FRAME COVER
D32	TUBE, TOP FRAME
D33	CONNECTOR
D34	TUBE ASSEMBLY, TOP FRAME

FRAMEWORK AND BASE FOR CLOSURE ON M728 FIGURE D1 SHEET 2 OF 3	
FIG NO.	DESCRIPTION
D35	TUBE, TOP FRAME
D36	CONNECTOR
D37	TUBE ASSEMBLY, TOP FRAME
D38	TUBE, UPPER BRACE
D39	TUBE ASSEMBLY
D40	PLATE
D41	TUBE, TOP FRAME
D42	LINK, FRAME
D43	BRACKET, BASE FRAME
D44	BRACKET, BASE FRAME
D45	BRACKET, BASE FRAME
D46	BRACKET, BASE FRAME
D47	FRAME TO FENDER INSTALLATION
D48	FRAME TO FENDER INSTALLATION
D49	FRAME TO FENDER INSTALLATION
D50	FRAME TO FENDER INSTALLATION
D51	FRAME TO FENDER INSTALLATION
D52	FRAME TO FENDER INSTALLATION
D53	FRAME TO FENDER INSTALLATION
D54	FRAME TO FENDER INSTALLATION
D55	BRACKET, BASE FRAME
D56	BRACE, FRAME
D57	BRACE, FRAME
D58	BRACKET, BASE FRAME
D59	BRACE, FRAME
D60	BRACE, FRAME
D61	TUBE, BASE FRAME SUPPORT
D62	TUBE, BASE FRAME SUPPORT
D63	BRACKET, BASE FRAME
D64	BRACKET, BASE FRAME
D65	TUBE, BASE FRAME SUPPORT
D66	CLAMP

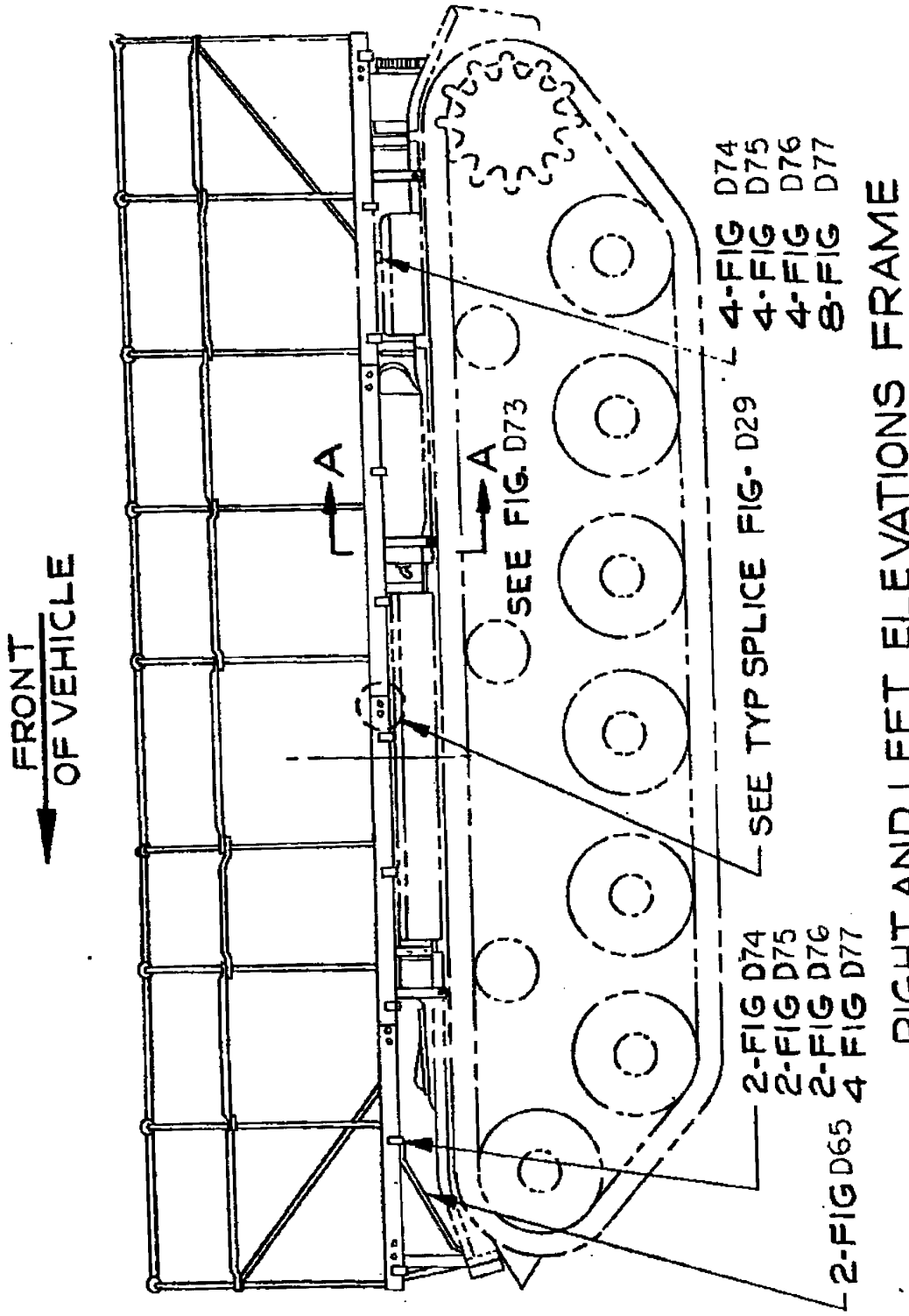
FRAMEWORK AND BASE FOR CLOSURE ON M728 FIGURE D1 SHEET 3 OF 3	
FIG NO.	DESCRIPTION
D67	HARDWARE, BASE FRAME
D68	LINK, FRAME (SHOWN ON FIG. 68)
D69	LINK, FRAME (SHOWN ON FIG. 69)
D70	BRACE, FRAME
D71	BRACKET, TIE DOWN
D72	BRACKET ASSY, TIE DOWN
D73	SECTION A-A



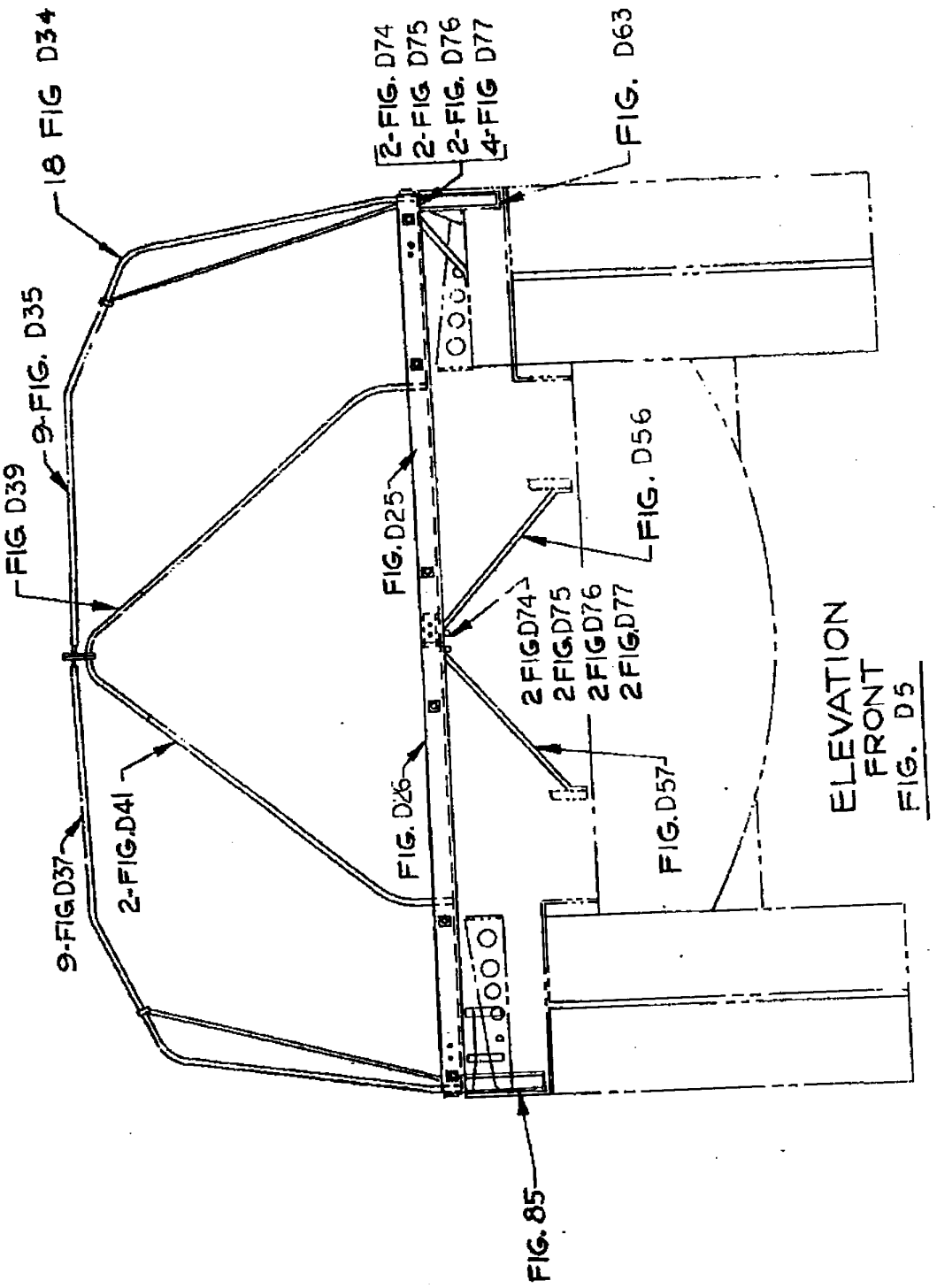
FRAME ASSEMBLY
FIGURE- D2

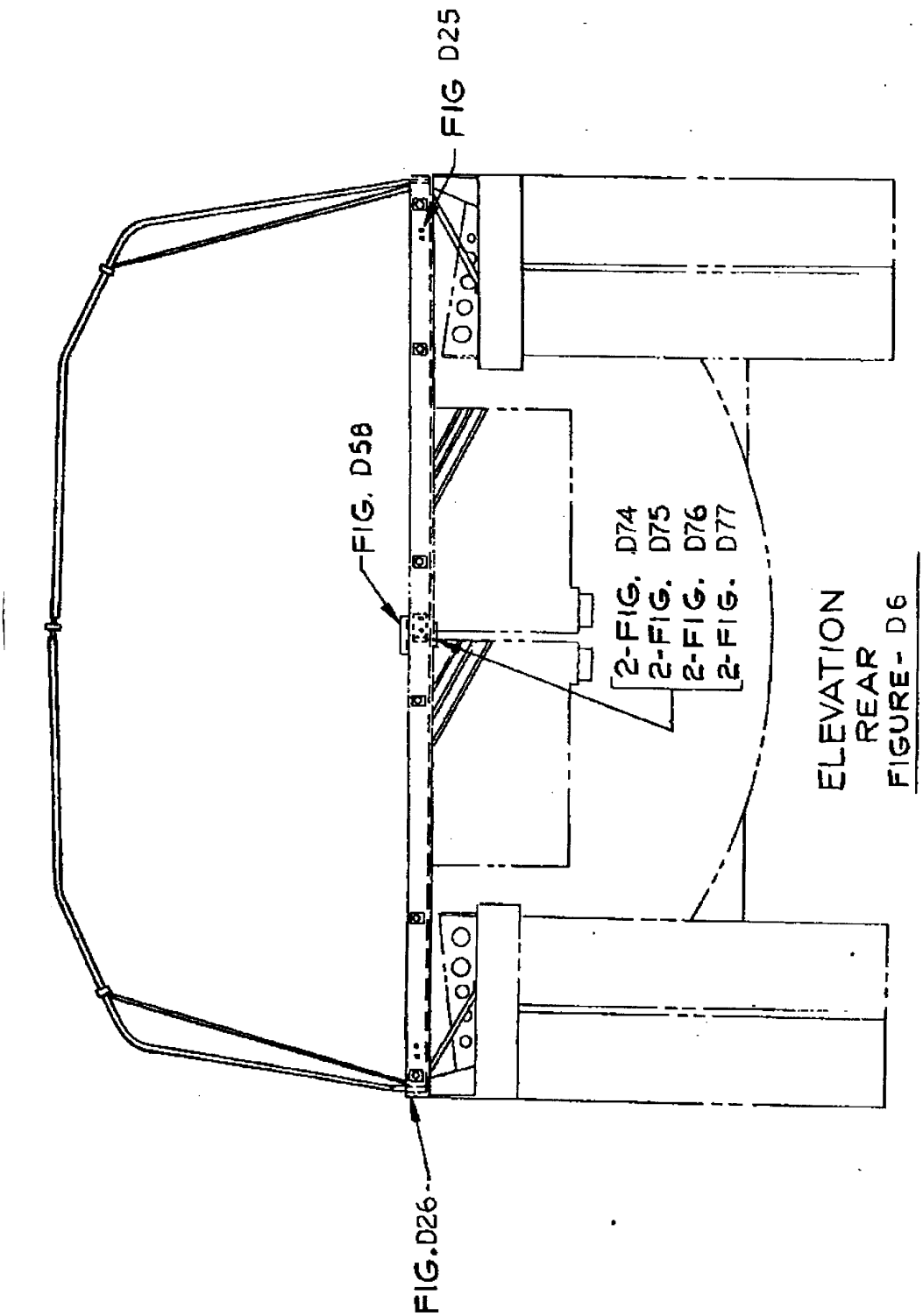


PLAN VIEW, FRAME
FIGURE- D3

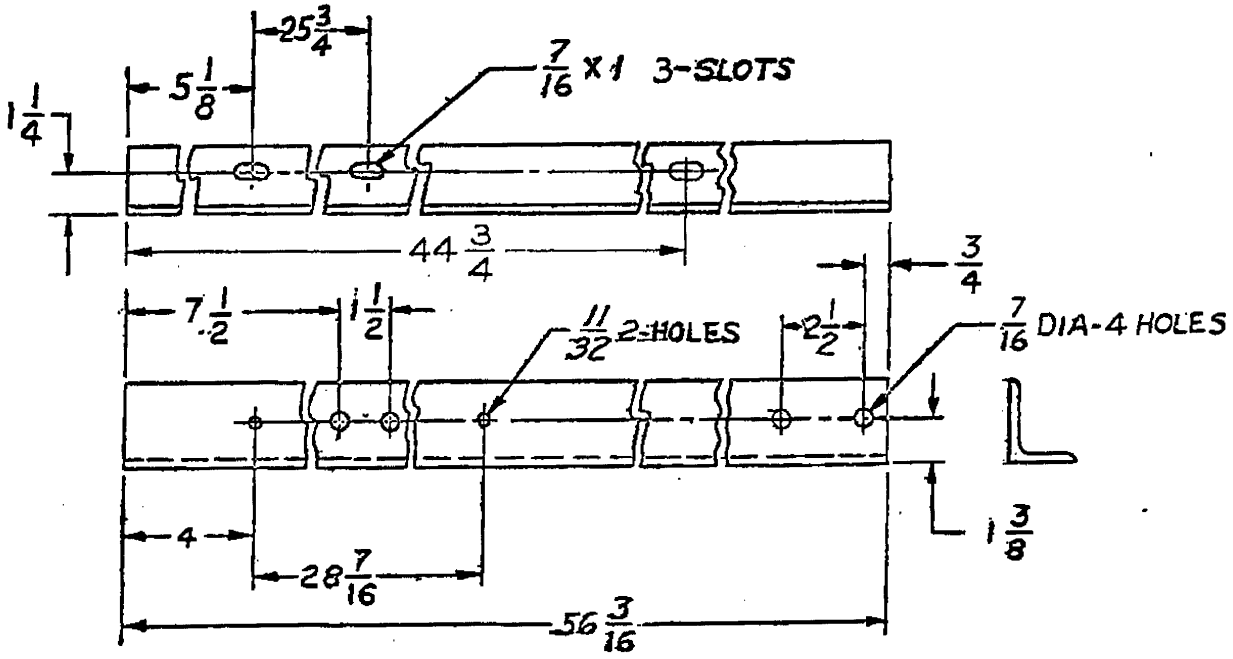


RIGHT AND LEFT ELEVATIONS FRAME
LEFT SIDE SHOWN
FIGURE D4


18 FIG D34
9-FIG. D35
FIG D39
9-FIG D37
2-FIG.D41
2-FIG. D74
2-FIG D75
2-FIG. D76
4-FIG D77
FIG. D63
FIG. D25
FIG. D26
FIG. D56
2FIGD74
2FIGD75
2FIGD76
2FIGD77
FIG. D57
FIG. 85
ELEVATION
FRONT
FIG. D5

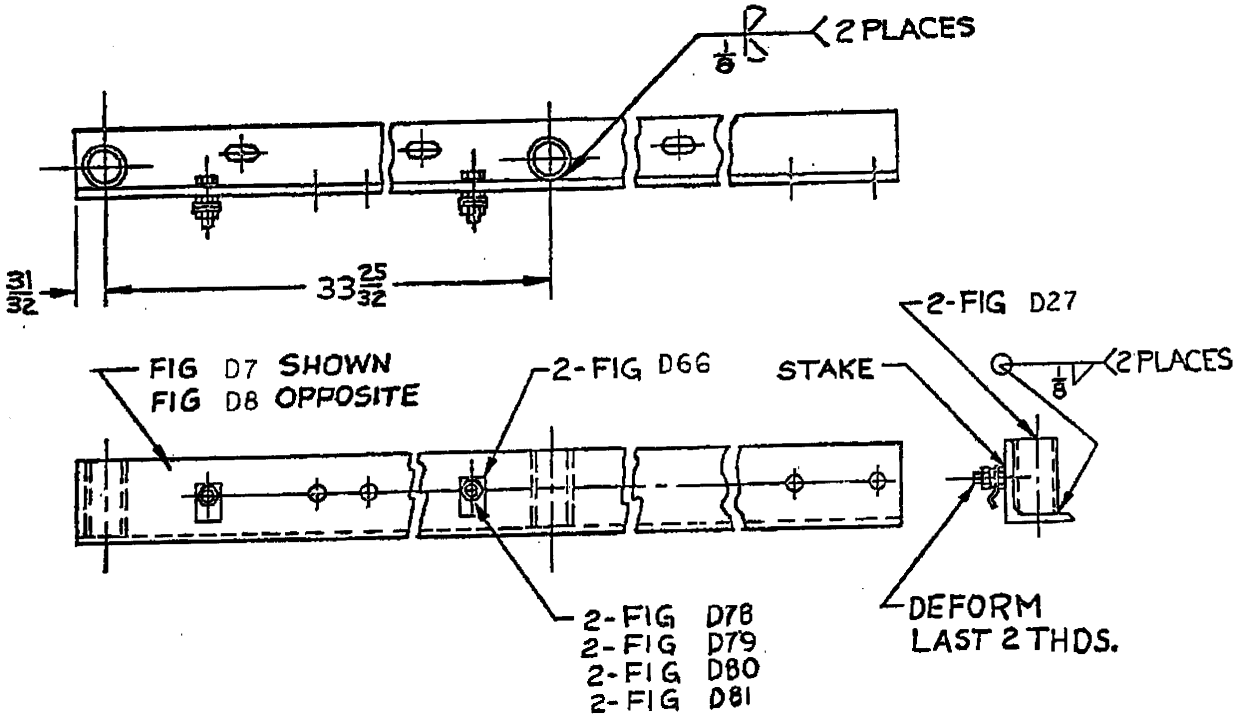


ELEVATION
REAR
FIGURE- D6



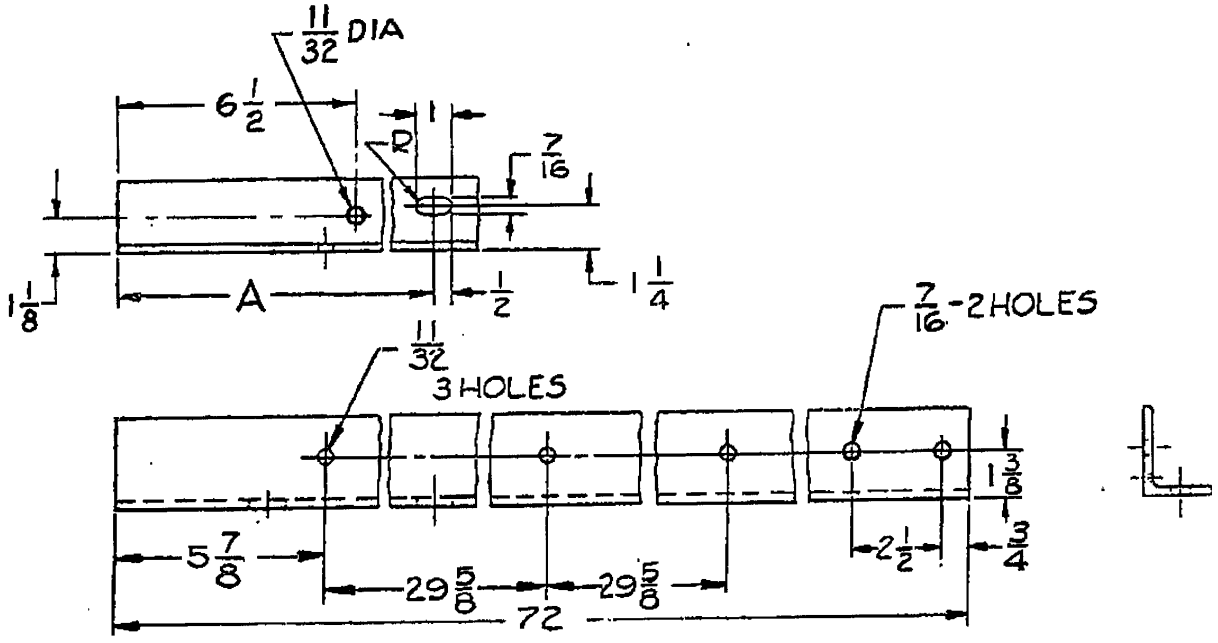
MATERIAL:
ALLUMINUM ALLOY IN ACCORDANCE WITH ASTM B241, ASTM B221, 2 ½ X 2 ¼ ANGLE.

FIGURE D7 (SHOWN) D8 (OPPOSITE). Base frame.



INERT GAS SHIELDED ARCH WELD IN ACCORDANCE WITH STANDARD MANUFACTURER'S PRACTICES, USING FILLER METAL IN ACCORDANCE WITH AWS A5.10

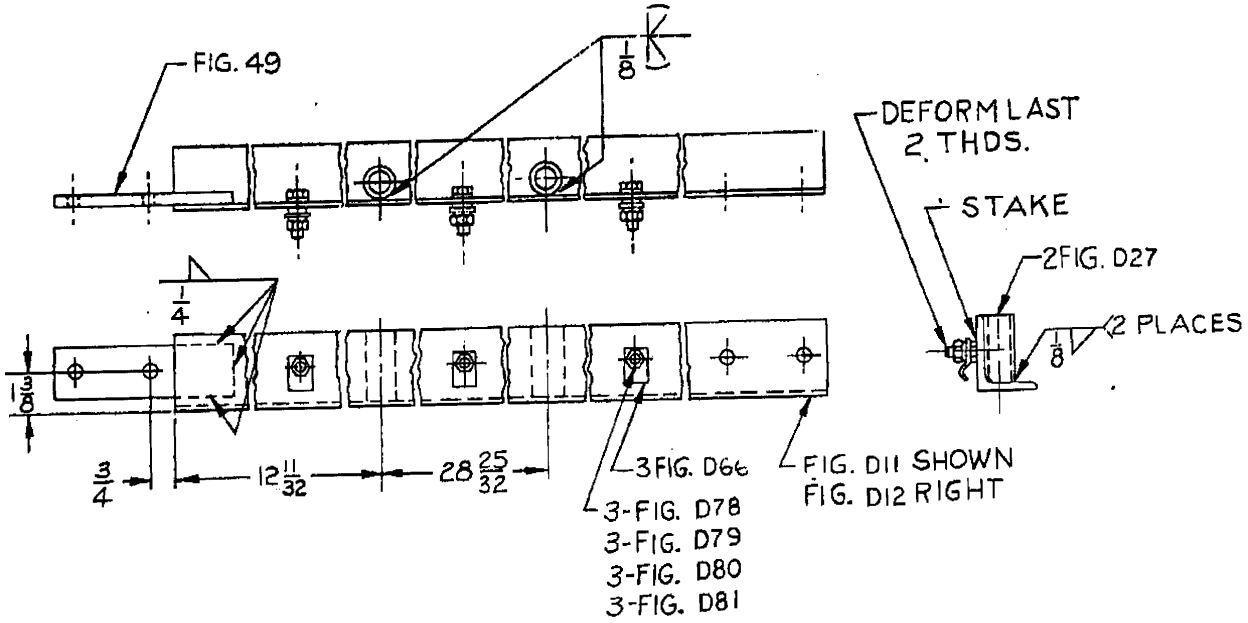
FIGURE D9 (SHOWN) FIGURE D10 (OPPOSITE). Base frame assembly.



	A
FIG D11	16
FIG D12	15 5/16

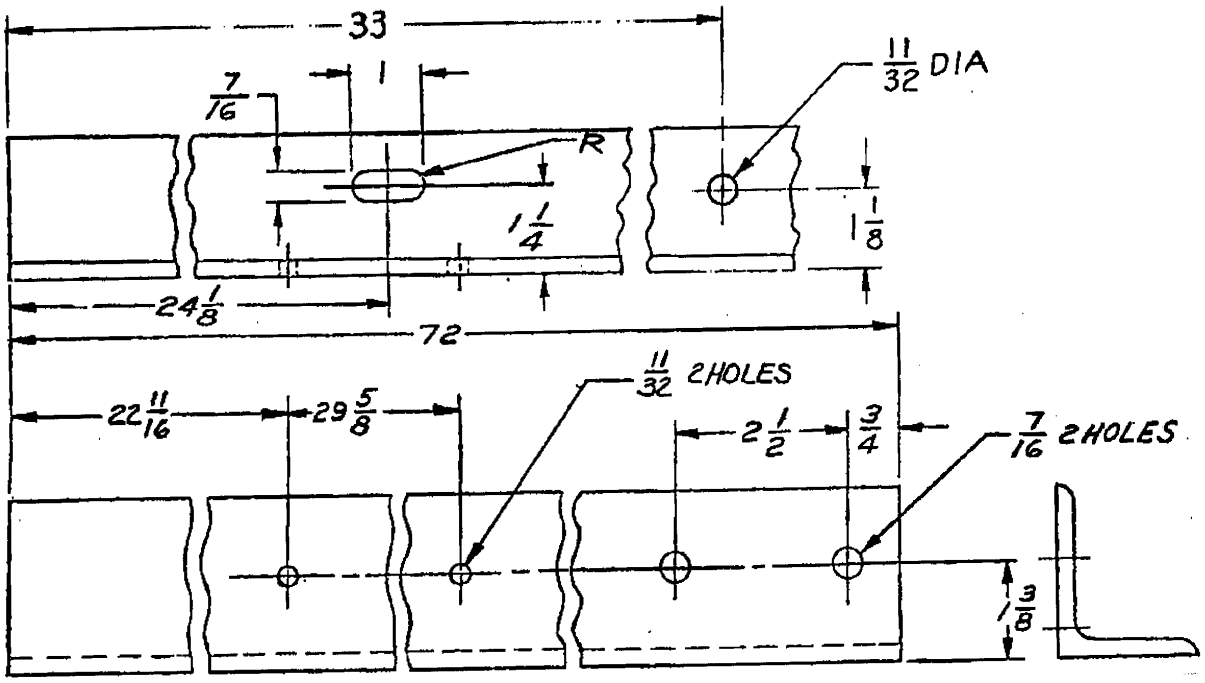
MATERIAL:
ALLUMINUM ALLOY IN ACCORDANCE WITH ASTM B241, ASTM B221., 2 ½ X 2 X ¼ ANGLE

FIGURE D11 (SHOWN) FIGURE D12 (OPPOSITE). Base frame.



INERT GAS SHIELDED ARCH WELD IN ACCORDANCE WITH STANDARD MANUFACTURER'S
PRACTICES, USING FILLER METAL IN ACCORDANCE WITH AWS A5.10

FIGURE D13 (SHOWN) FIGURE D14 (RIGHT). Base frame assembly.



MATERIAL:
ALLUMINUM ALLOY IN ACCORDANCE WITH ASTM B241, ASTM B221., 2 ½ X 2 X ¼ ANGLE

FIGURE D15 (SHOWN) FIGURE D16 (RIGHT). Base frame.

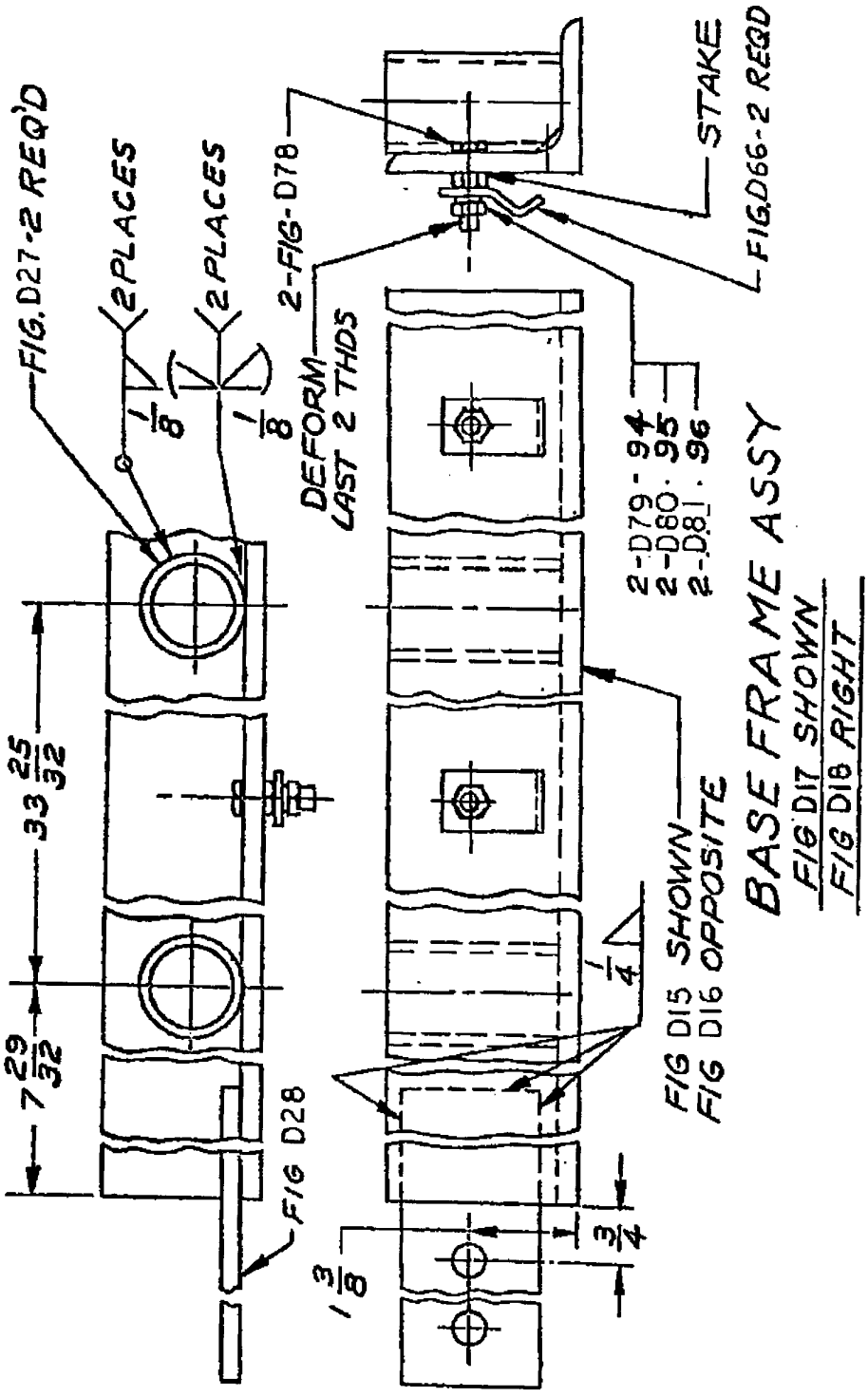
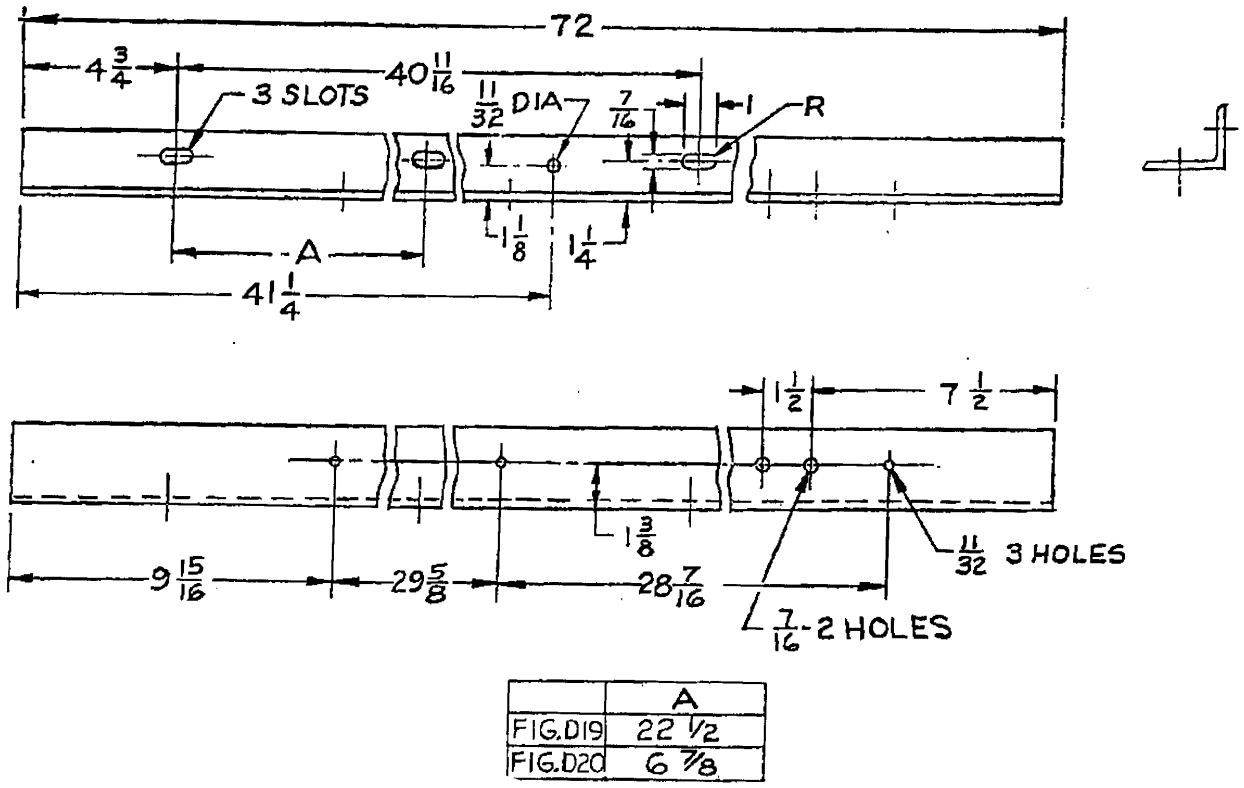


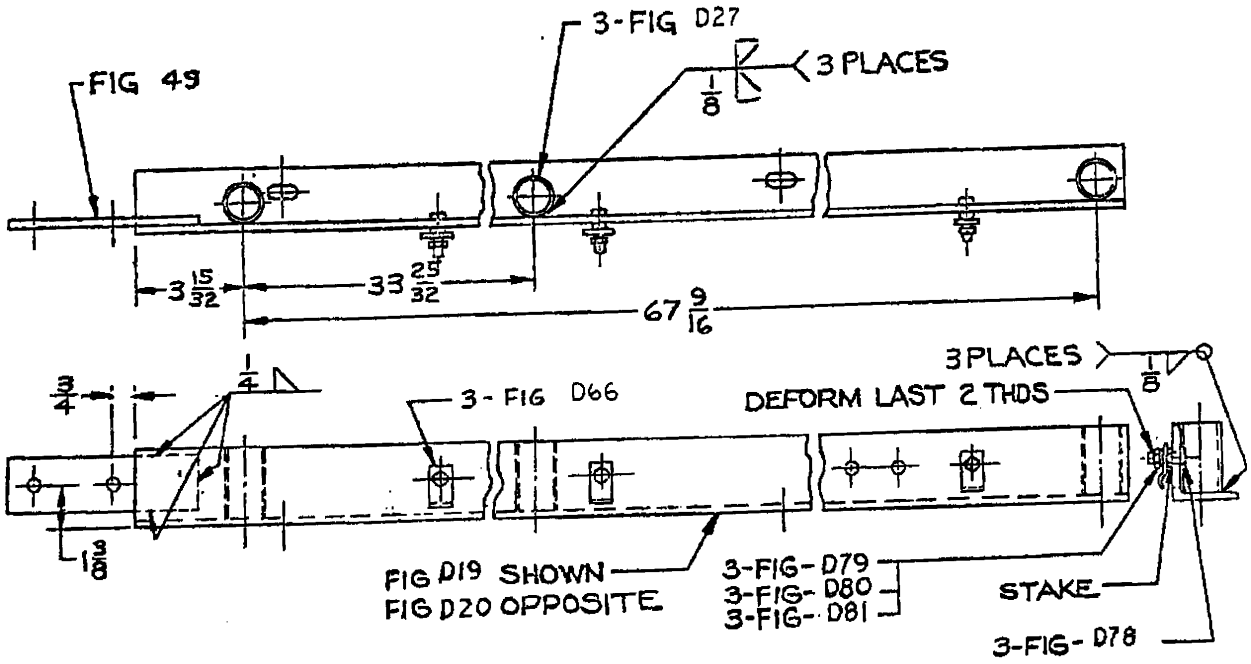
FIG. D27-2 REQ'D
2 PLACES
2 PLACES
1/8
1/8
2-FIG-D78
DEFORM LAST 2 THDS
STAKE
FIG.D66-2 REQD
2-D79 - 94
2-D80 - 95
2-D81 - 96
33 25/32
7 29/32
FIG D28
FIG D15 SHOWN
FIG D16 OPPOSITE
1/4
1 3/8
1
3/4
BASE FRAME ASSY
FIG D17 SHOWN
FIG D18 RIGHT



	A
FIG.D19	22 1/2
FIG.D20	6 7/8

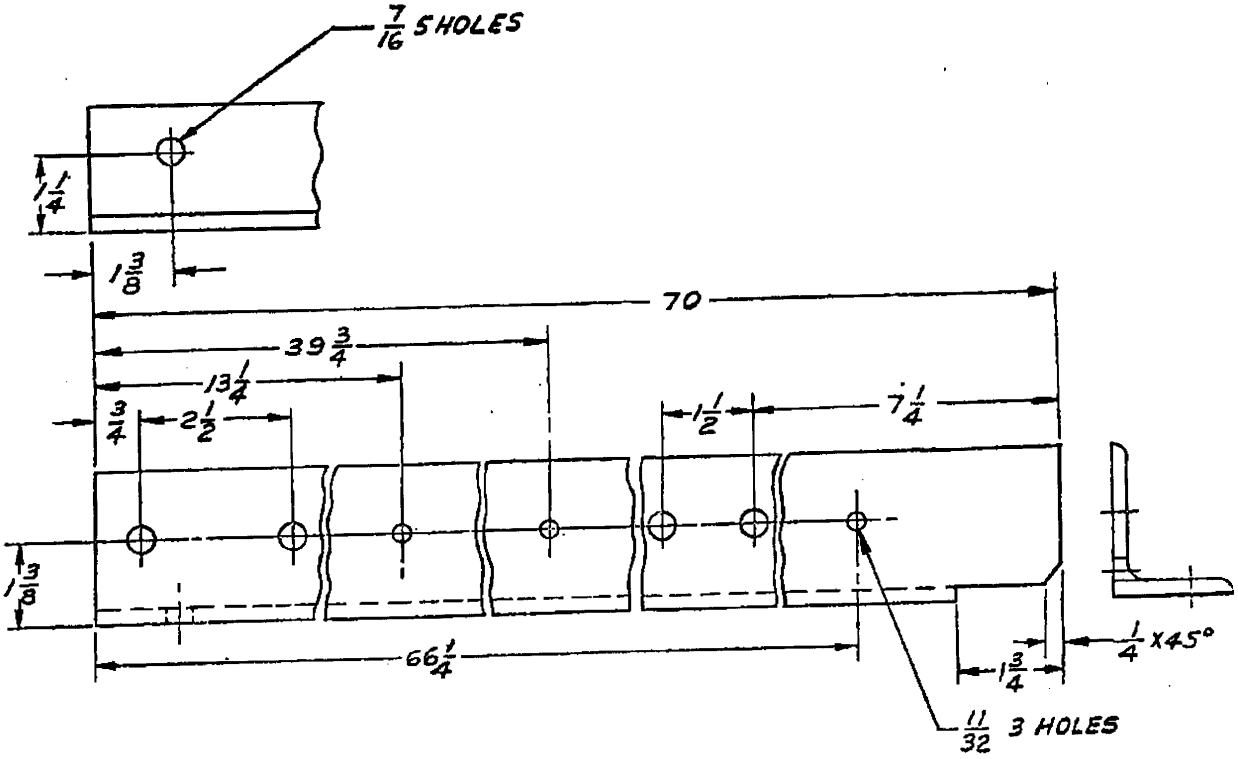
MATERIAL:
ALLUMINUM ALLOY IN ACCORDANCE WITH ASTM B241, ASTM B221., 2 ½ X 2 X ¼ ANGLE

FIGURE D19 (SHOWN) FIGURE D20 (OPPOSITE). Base frame.



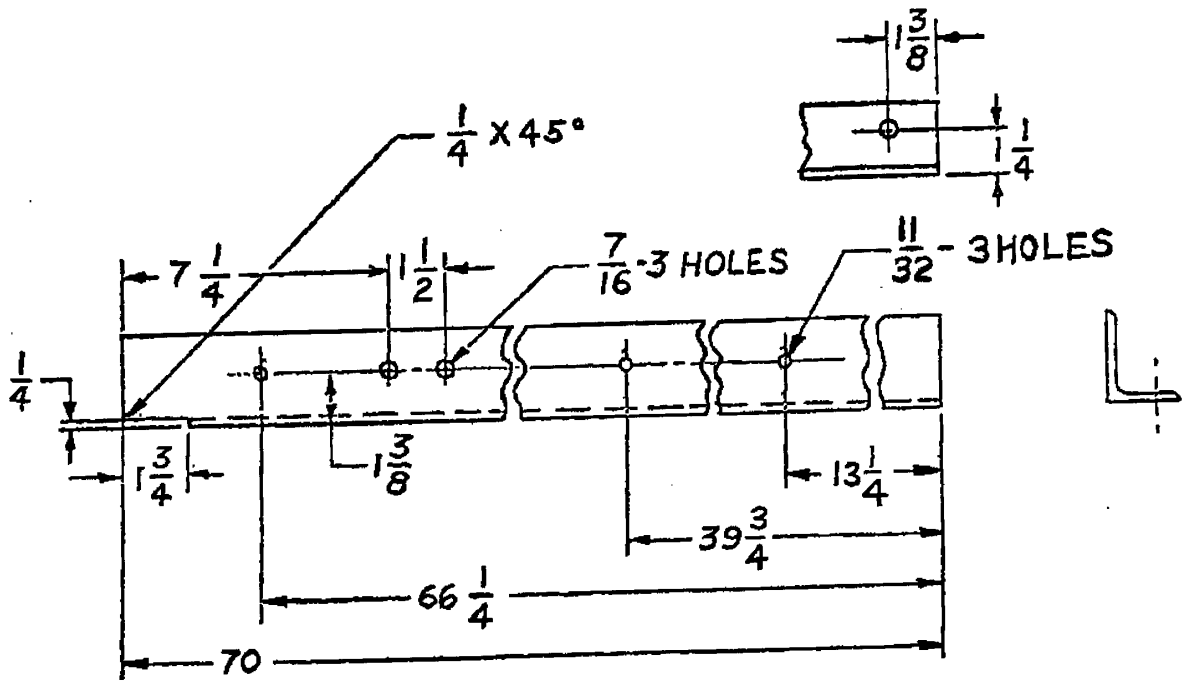
INERT GAS SHIELDED ARCH WELD IN ACCORDANCE WITH STANDARD MANUFACTURER'S
PRACTICES, USING FILLER METAL IN ACCORDANCE WITH AWS A5.10.

FIGURE D21 (SHOWN) FIGURE D22 (OPPOSITE). Base frame assembly.



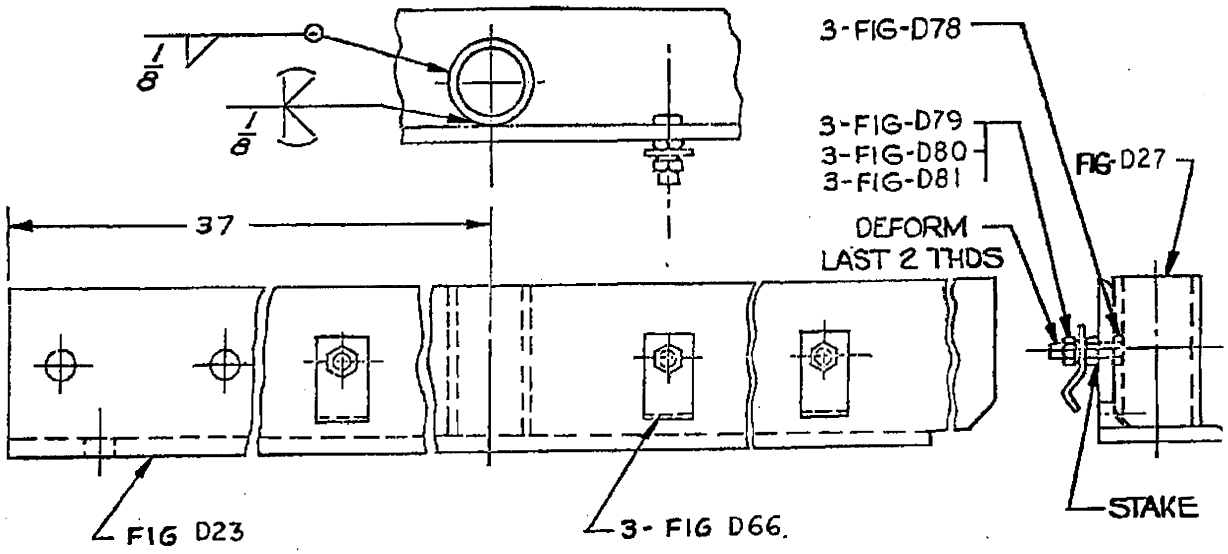
MATERIAL
ALLUMINUM ALLOY IN ACCORDANCE WITH ASTM B241, ASTM B221., 2 ½ X 2 X ¼ ANGLE

FIGURE D23. Base frame.



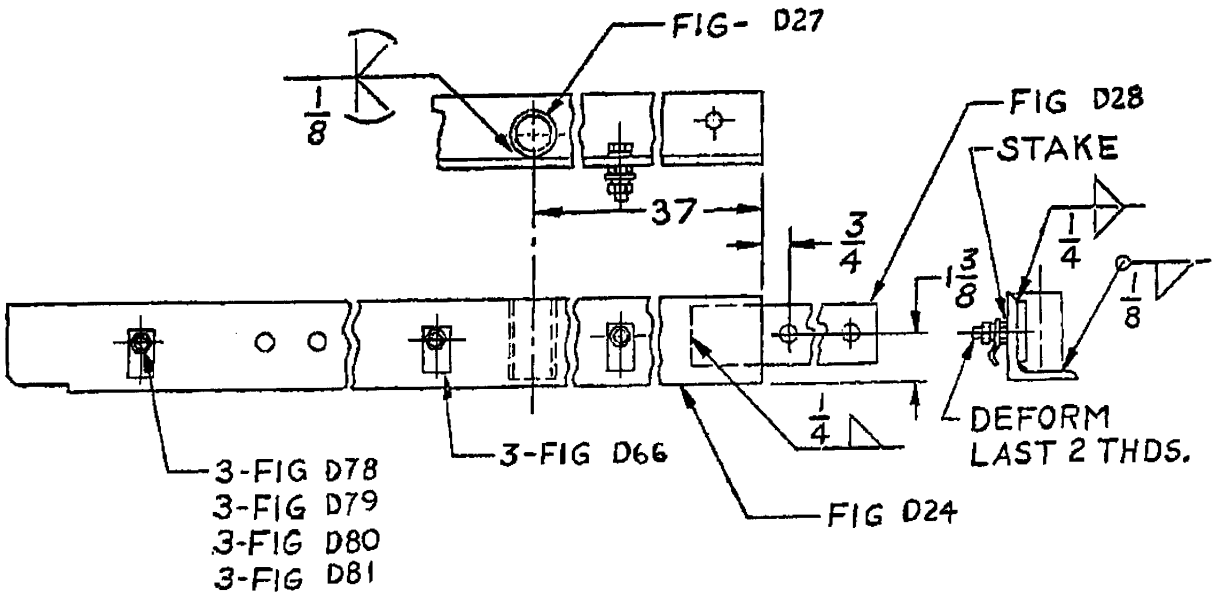
MATERIAL:
ALLUMINUM ALLOY IN ACCORDANCE WITH ASTM B241, ASTM B221, 2 ½ X 2 X ¼ ANGLE

FIGURE D24. Base frame.



INERT GAS SHIELDED ARCH WELD IN ACCORDANCE WITH STANDARD MANUFACTURER'S
PRACTICES, USING FILLER METAL IN ACCORDANCE WITH AWS A5.10.

FIGURE D25. Base frame assembly.



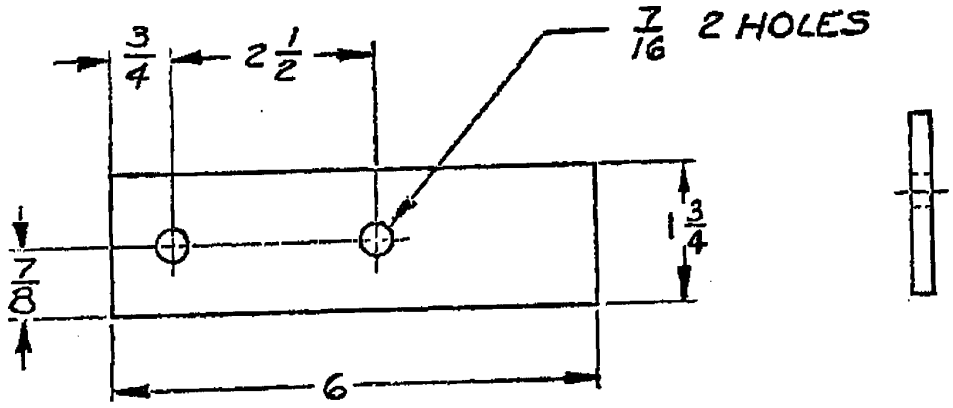
INERT GAS SHIELDED ARCH WELD IN ACCORDANCE WITH STANDARD MANUFACTURER'S
PRACTICES, USING FILLER METAL IN ACCORDANCE WITH AWS A5.10.

FIGURE D26. Base frame assembly (2 req'd).

22 REQ'D

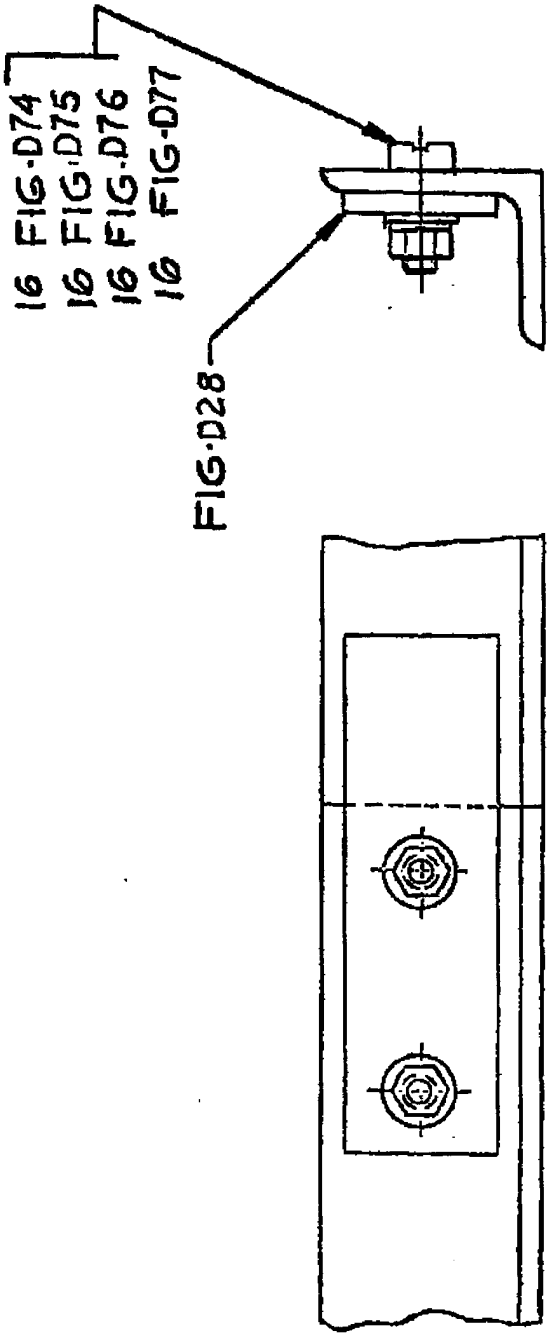
ENGAGEMENT PIPE
FIGURE - D27

NOTE:
TUBING, ALUMINUM ALLOY,
TYPE I 6IS T6
SPEC WW-T-700/6
1.315 OD x .133 WALL

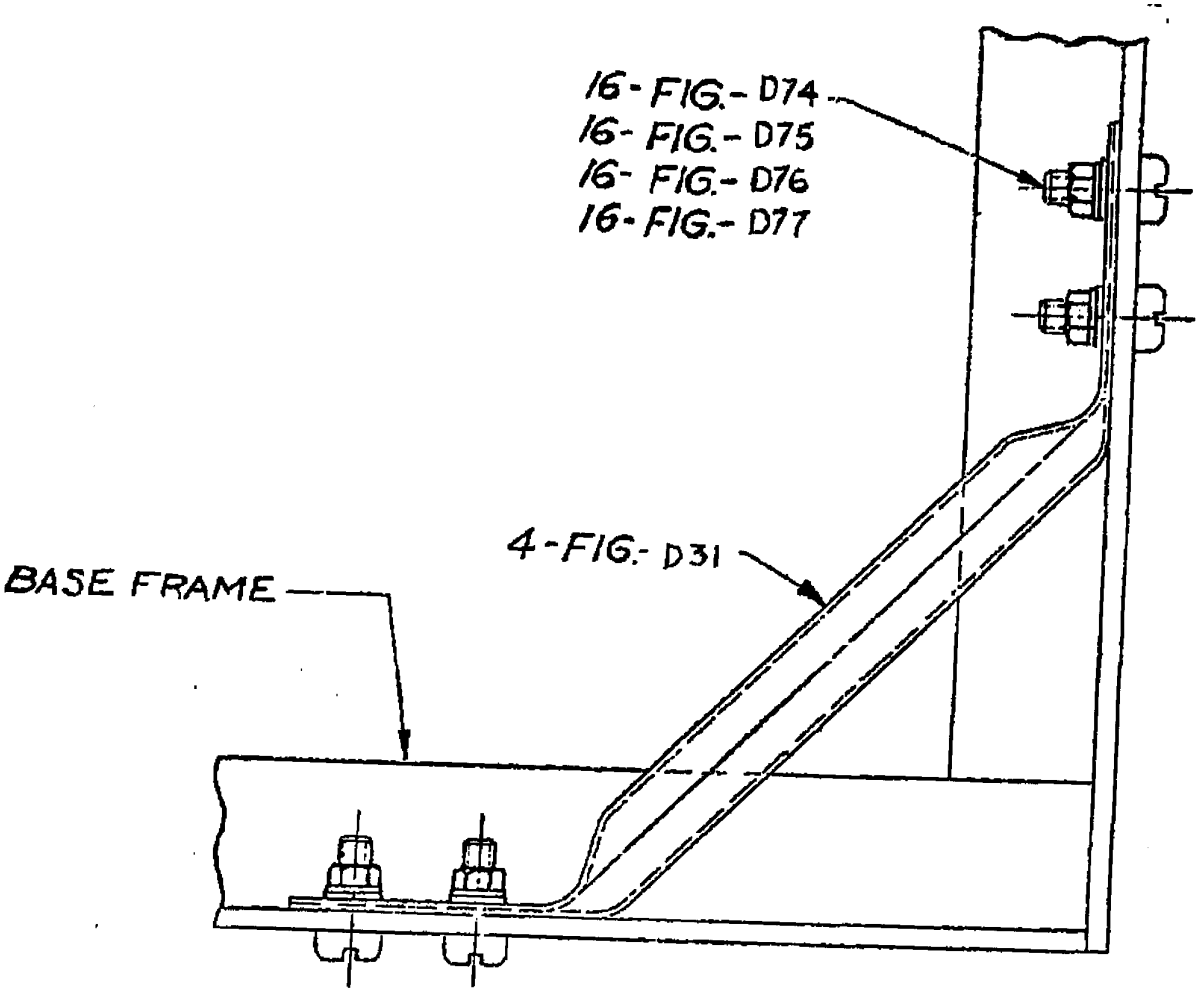


NOTE:
ALUMINUM ALLOY
C/S-T6
SPEC QQ-A-250/11
1/4 THICK

SPLICE PLATE
FIGURE - D28
8 REQ'D



TYP BASE FRAME SPLICE
FIG- D29



TYP CORNER CONSTRUCTION
FIGURE - D30

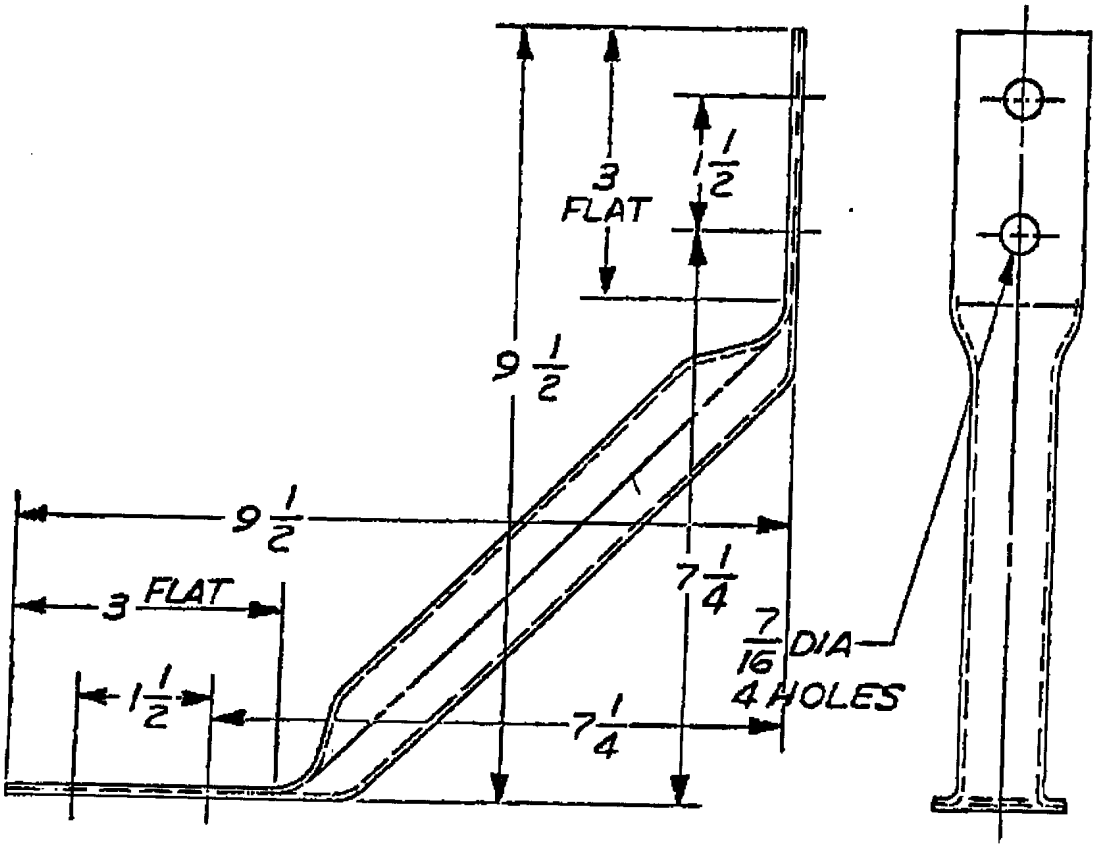
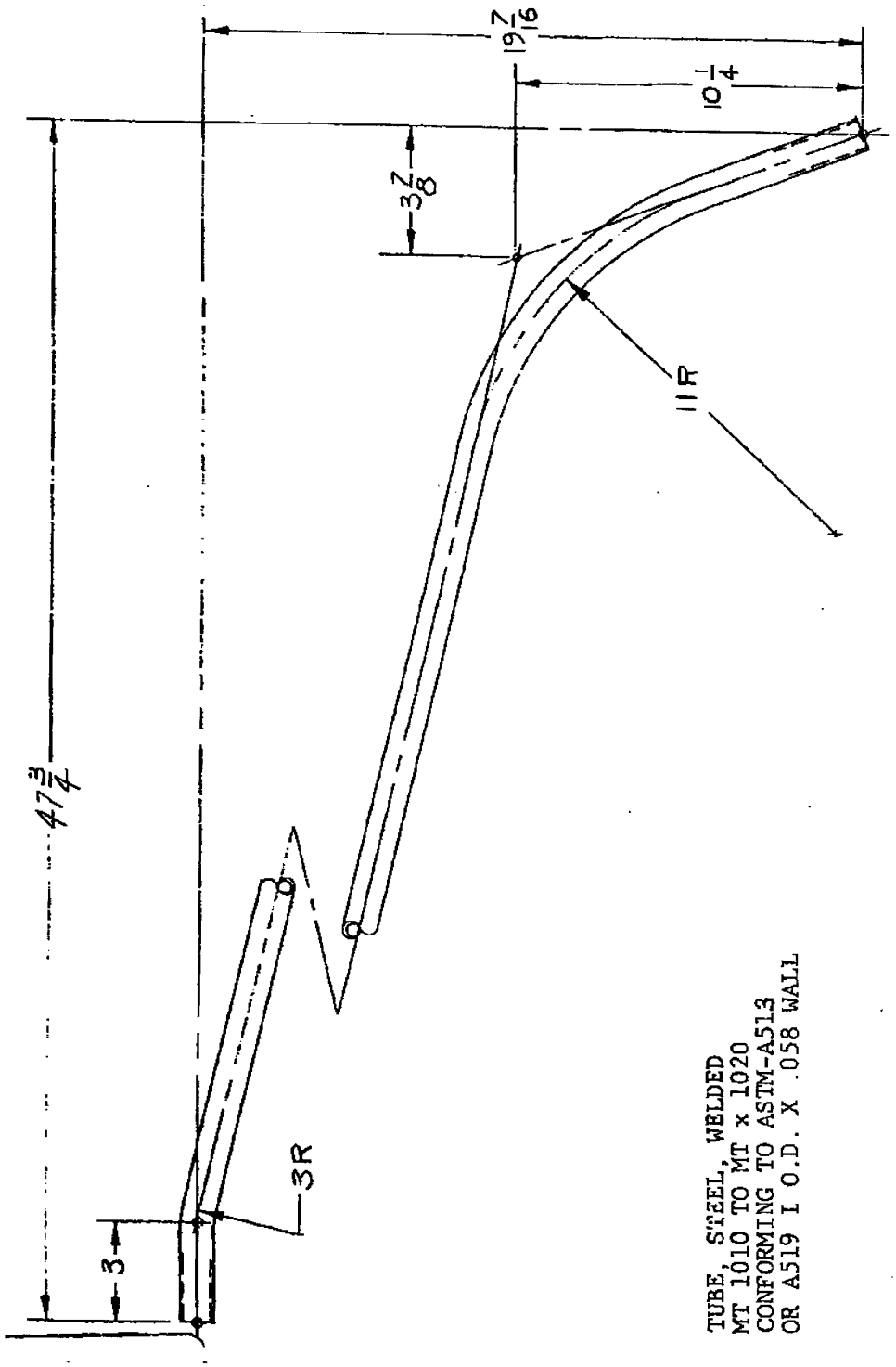
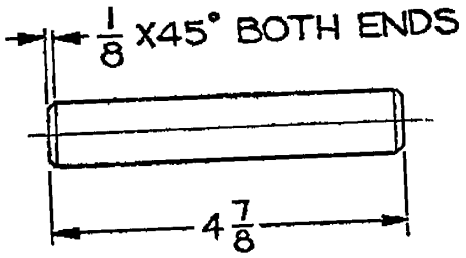


FIGURE-D31
TUBE, BASE FRAME CORNER
4 REQ'D

TUBE, STEEL, WELDED, MT1010 TO MT1020, IN ACCORDANCE WITH ASTM A512, ASTM A513, OR ASTM A519, IO.D. X 0.58 WALL
TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

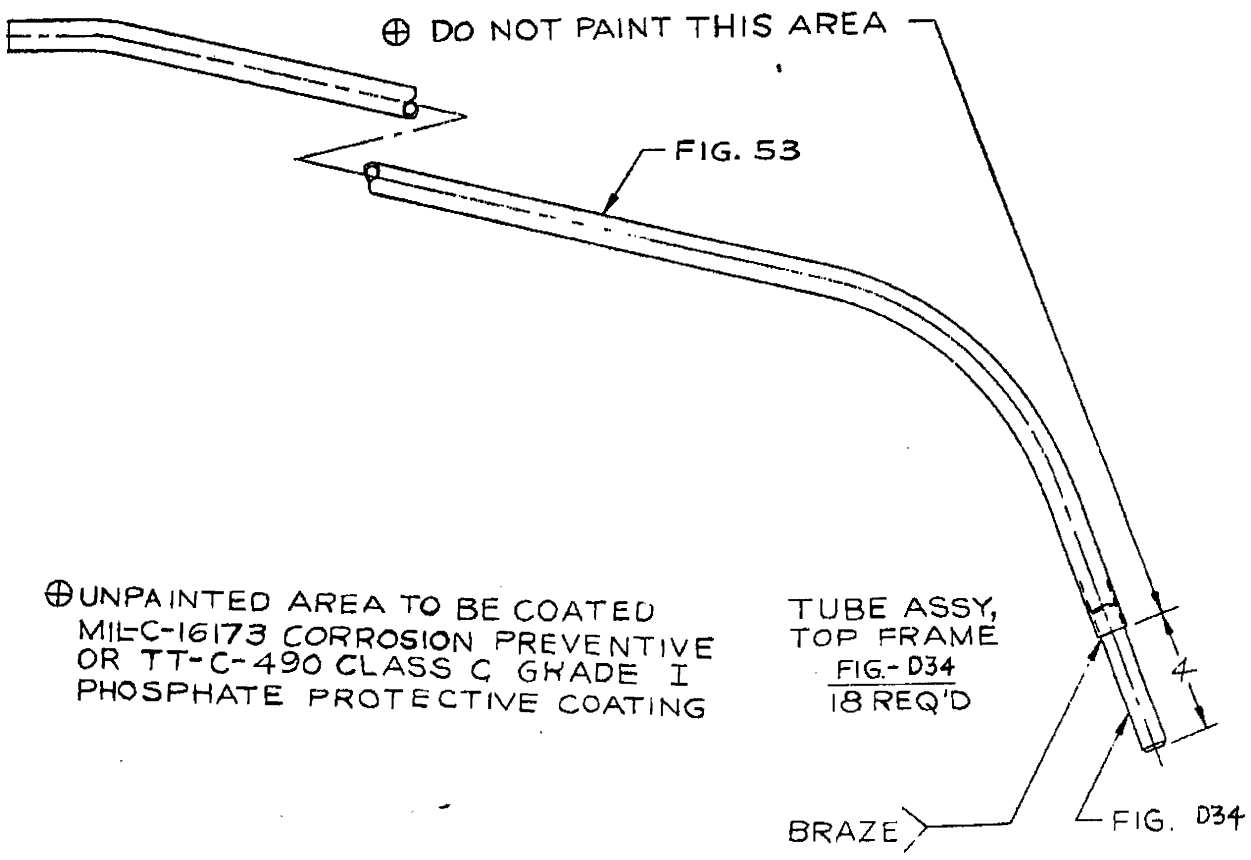
FIGURE D31. Tube, base frame corner (4 req'd)


19 7/16
10 1/4
3 7/8
11R
47 3/4
3R
3
TUBE, TOP FRAME
FIG. - D32
18 REQ'D.
TUBE, STEEL, WELDED
MT 1010 TO MT x 1020
CONFORMING TO ASTM-A513
OR A519 I O.D. X .058 WALL
I.D. OF TUBE MUST
BE FREE OF BURRS



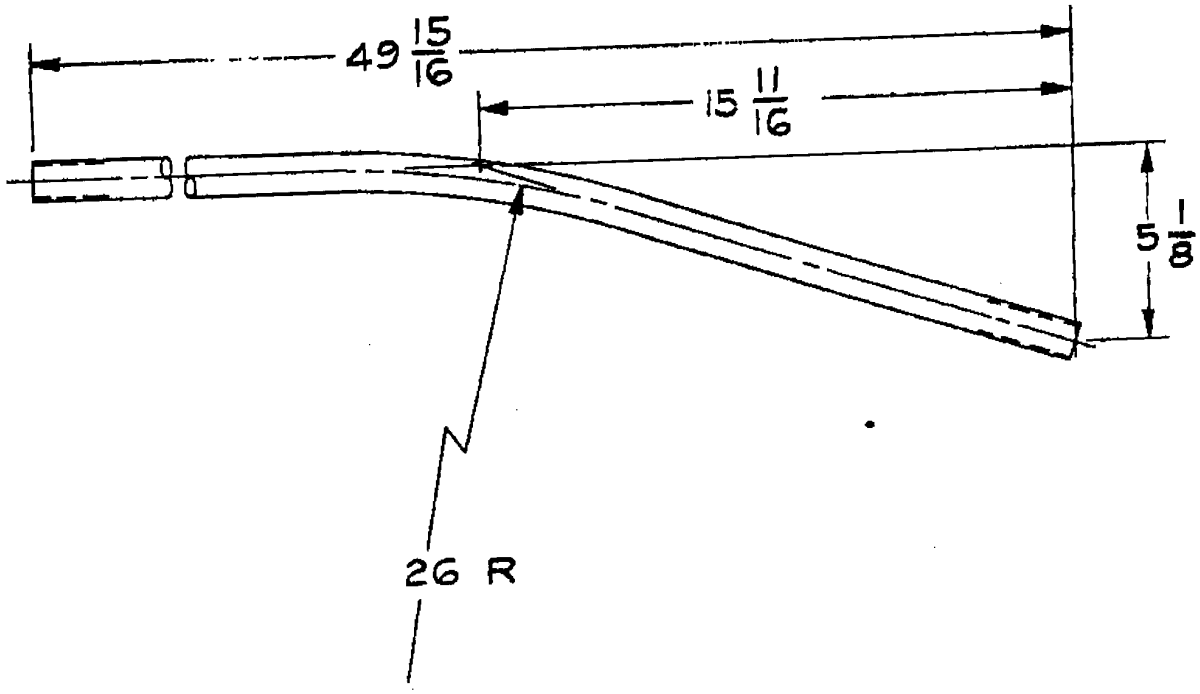
NOTE
STEEL C1015 TO C1025,
CONFORMING TO ASTM-A108
7/8 DIA

CONNECTOR
FIGURE- D33
20 REQ'D.



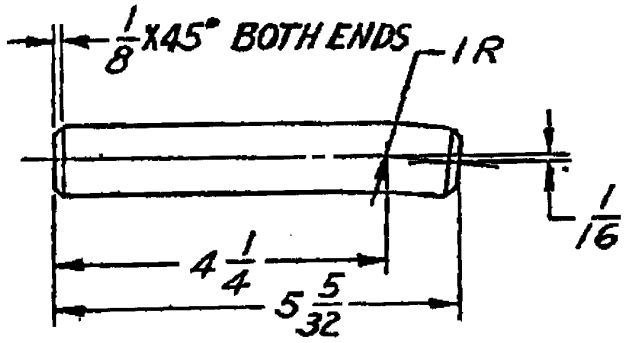
NOTES:
FURNACE BRAZE IN ACCORDANCE WITH AWS C3.4, C3.5, OR C3.7, AS APPLICABLE USE FILLER METAL IN ACCORDANCE WITH AWS A5.10.
TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

FIGURE D34. Tube assembly, top frame (18 req'd).



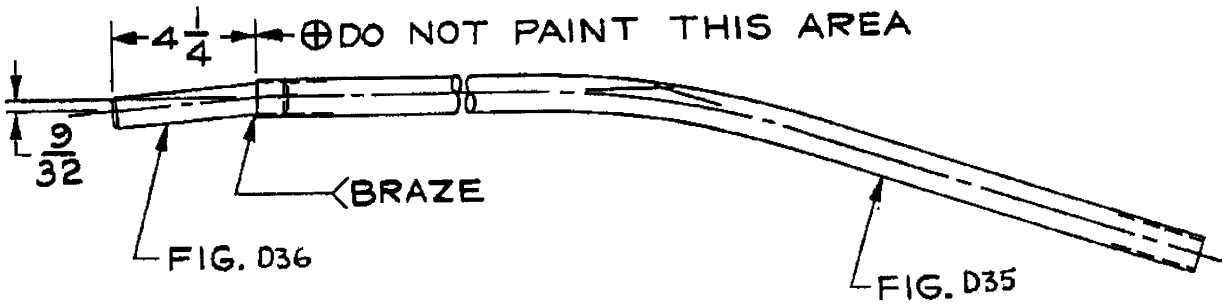
TUBE, STEEL, WELDED, MT1010 TO MT1020, IN ACCORDANCE WITH ASTM A512, ASTM A513, OR ASTM A519, IO.D. X 0.58 WALL
TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.
ID OF TUBE MUST BE FREE OF BURRS AND PAINT. FINAL FINISH 9 PIECES AS INDICATED USE REMAINING PIECES AS SHOWN IN FIGURE D37.

FIGURE D35. Tube, top frame (18 req'd).



NOTE:
STEEL, FS1015 TO FS1025
CONFORMING TO ASTM-A108
7/8 DIA

CONNECTOR
FIG D36
9 REQ'D.



NOTES:

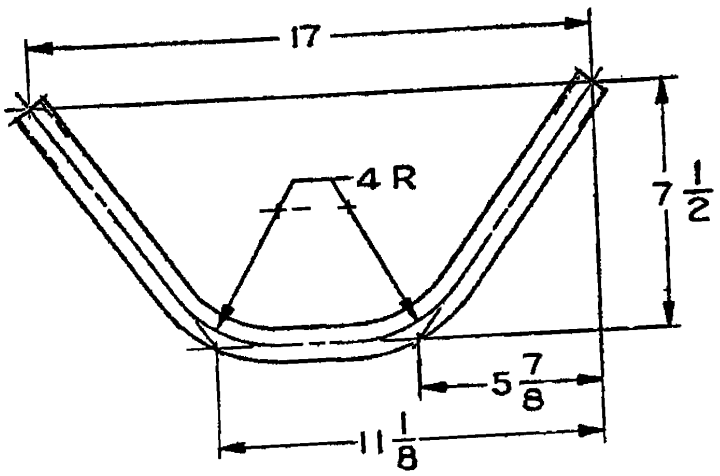
FURNACE BRAZE IN ACCORDANCE WITH AWS C3.4, C3.5, C3.7.

TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

UNPAINTED AREA TO BE COATED WITH MIL-PRF-16173

ID OF TUBE MUST BE FREE OF PAINT

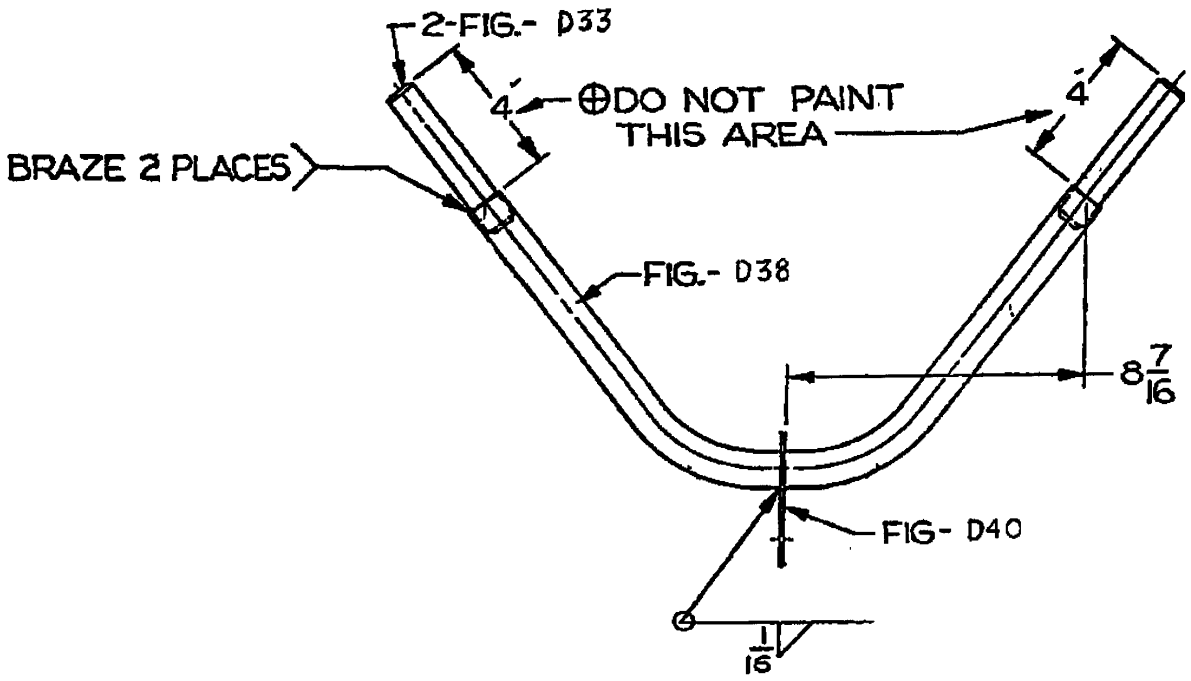
FIGURE D37. Tube assembly top frame (9 req'd).



TUBE, STEEL, WELDED,
MT1010 TO MT1020,
CONFORMING TO ASTM-A513
OR A519 IOD x .058 WALL

I.D. OF TUBE MUST BE
FREE OF BURRS

TUBE, UPPER BRACE
FIGURE - D38
1 REQ'D.



NOTES

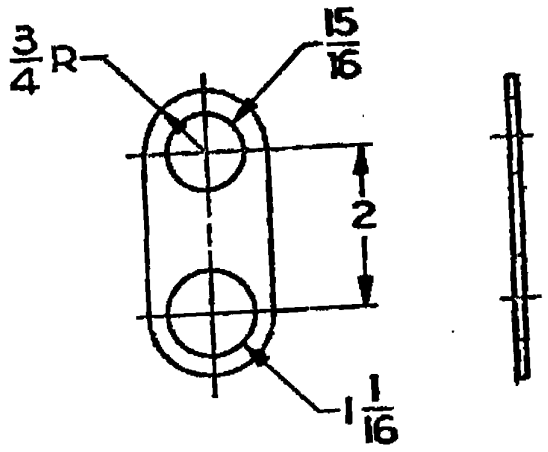
FURNACE BRAZE IN ACCORDANCE WITH AWS C3.4, C3.5, C3.7, FILLER METAL AWS A5.8.

TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

UNPAINTED AREA TO BE COATED WITH MIL-PRF-16173

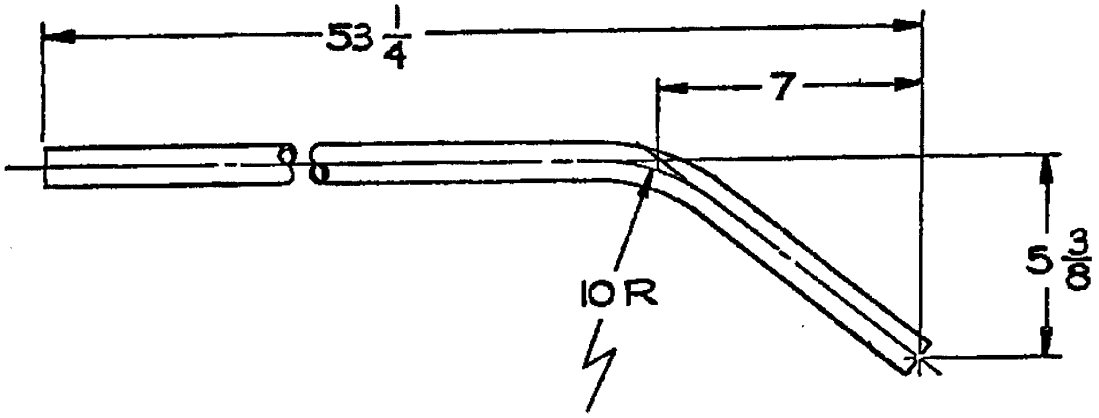
WELD USING ELECTRODE FROM AWS A5.1.

FIGURE D39. Tube assembly top frame (1 req'd).



NOTE:
STEEL, FS 1009 TO FS 1020
CONDITION OPTIONAL
SPEC QQ-S-698
.125 THICK

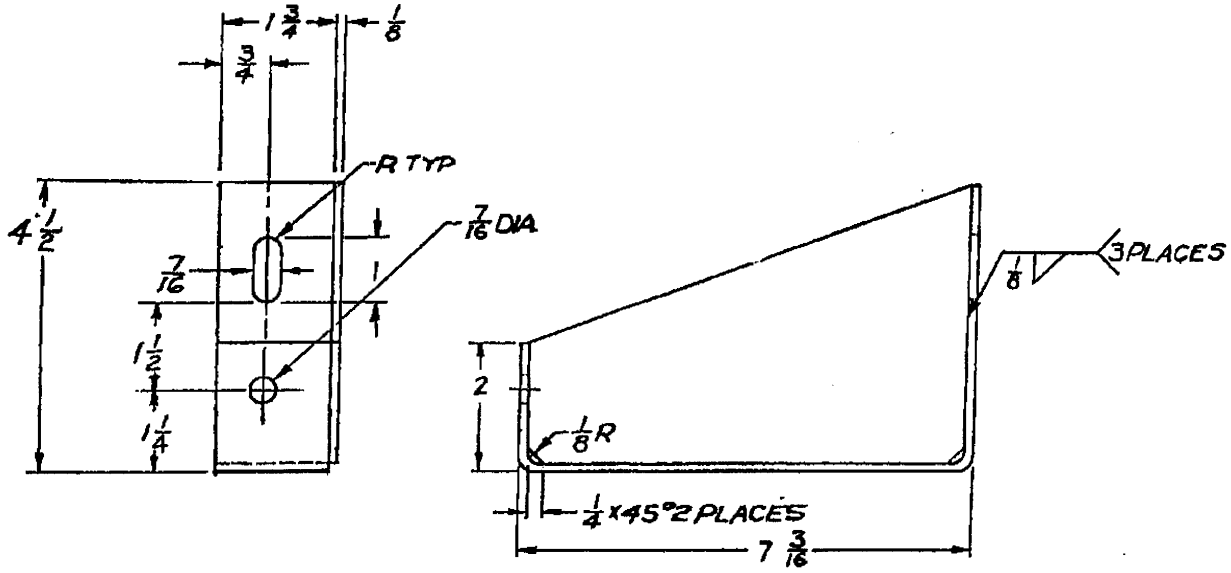
PLATE
FIGURE- D40
1 REQD.



TUBE, TOP FRAME
FIG - D41
2 REQD

TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

FIGURE D41. Tube, top frame (2 req'd).



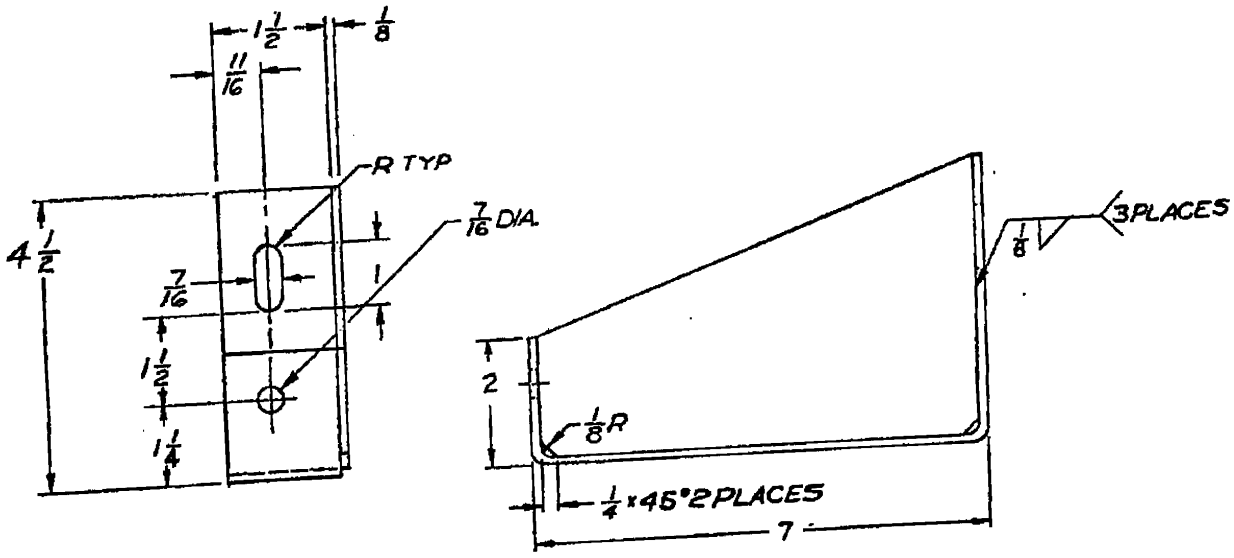
TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

REMOVE ALL BURRS AND SHARP EDGES

MATERIAL NOTE: STEEL PLATE SPEC ASTM A827.

WELD NOTE- STEEL WELD ELECTRODE SPEC AWS A5.1.

FIGURE D43 (SHOWN, 3 REQ'D) FIGURE D44 (OPPOSITE, 2 REQ'D). Bracket, base frame.



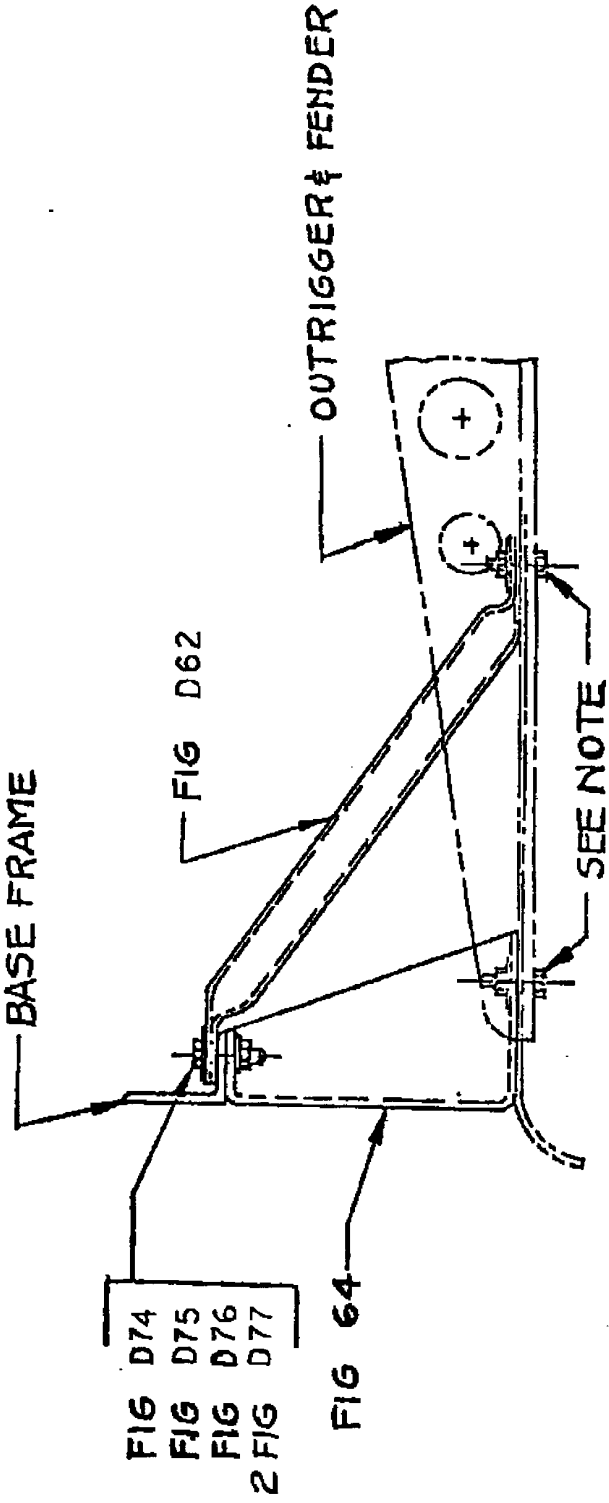
TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

REMOVE ALL BURRS AND SHARP EDGES

MATERIAL NOTE: STEEL PLATE SPEC ASTM A827.

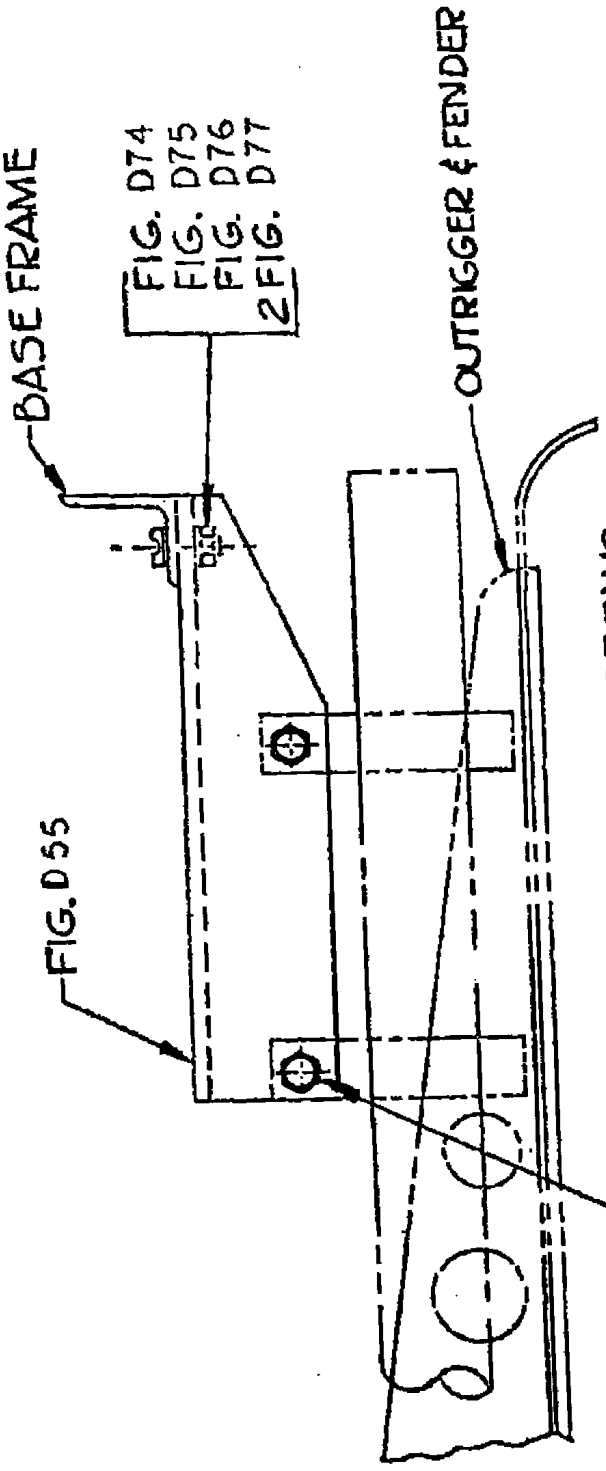
WELD NOTE- STEEL WELD ELECTRODE SPEC AWS A5.1.

FIGURE D45 (SHOWN, 1 REQ'D) FIGURE D46 (OPPOSITE, 1 REQ'D). Bracket, base frame.

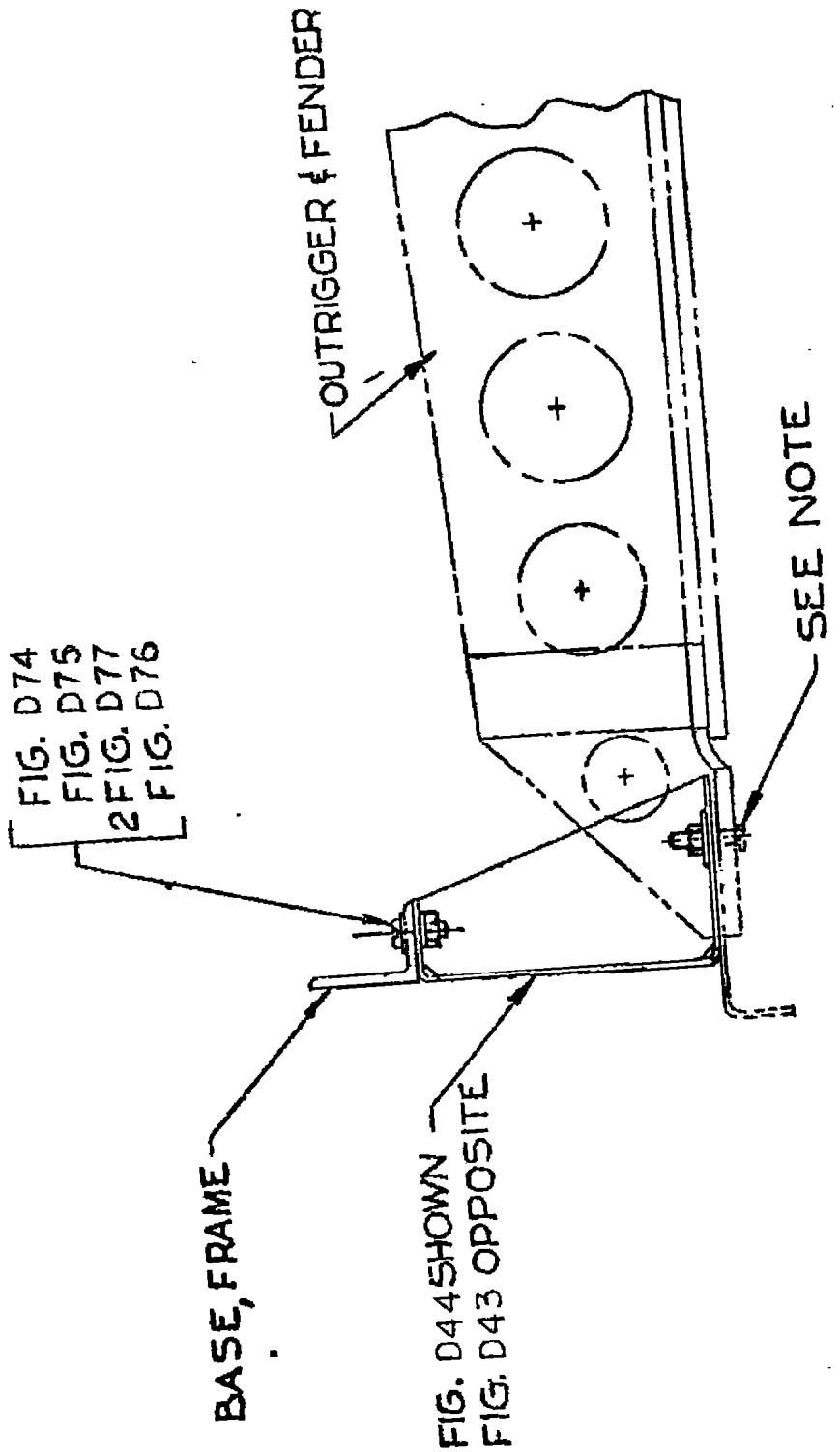


FRAME TO FENDER INSTALLATION
FIGURE D47

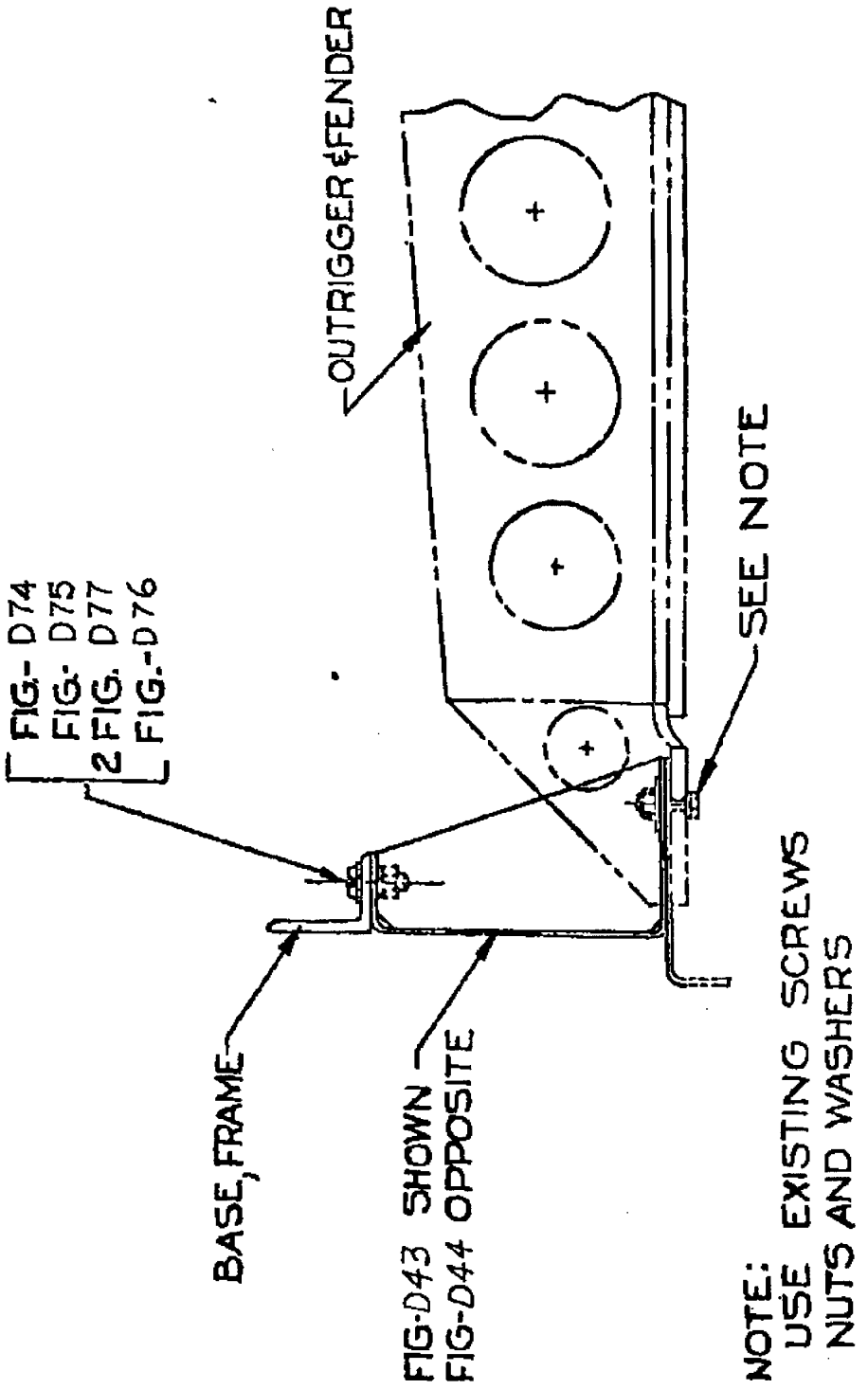
NOTE
USE EXISTING SCREWS, NUTS AND WASHERS



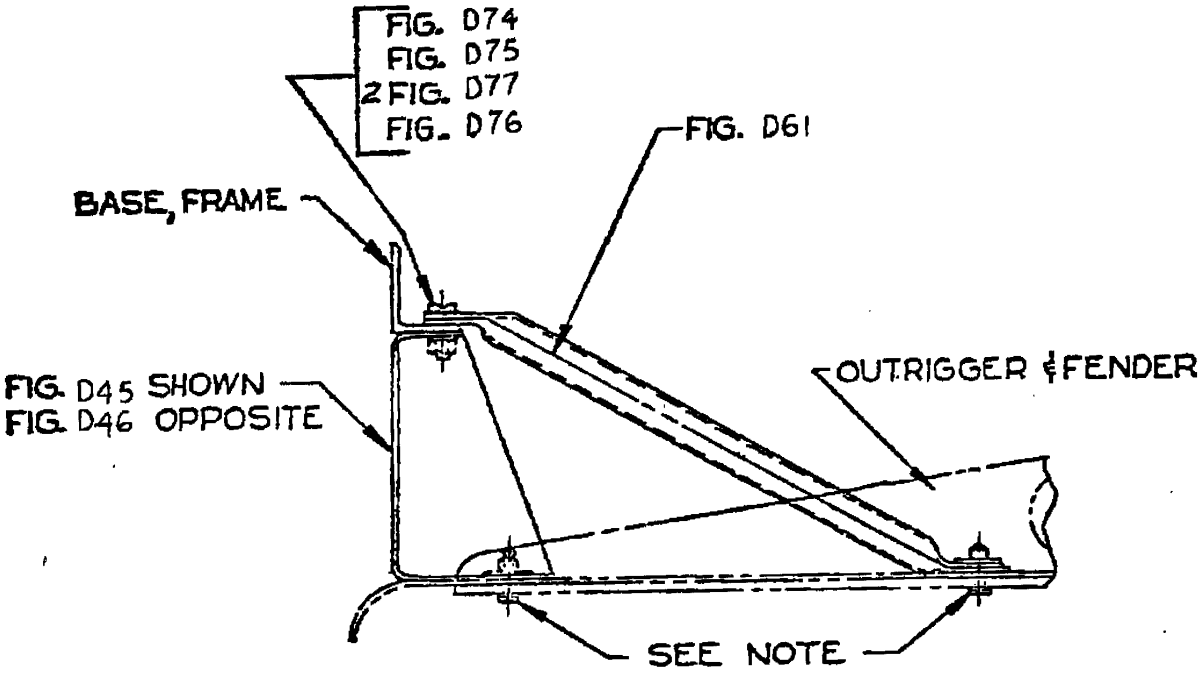
FRAME TO FENDER
INSTALLATION
FIGURE D48



FRAME TO FENDER
INSTALLATION
FIGURE- D49 SHOWN
FIGURE- D50. OPPOSITE

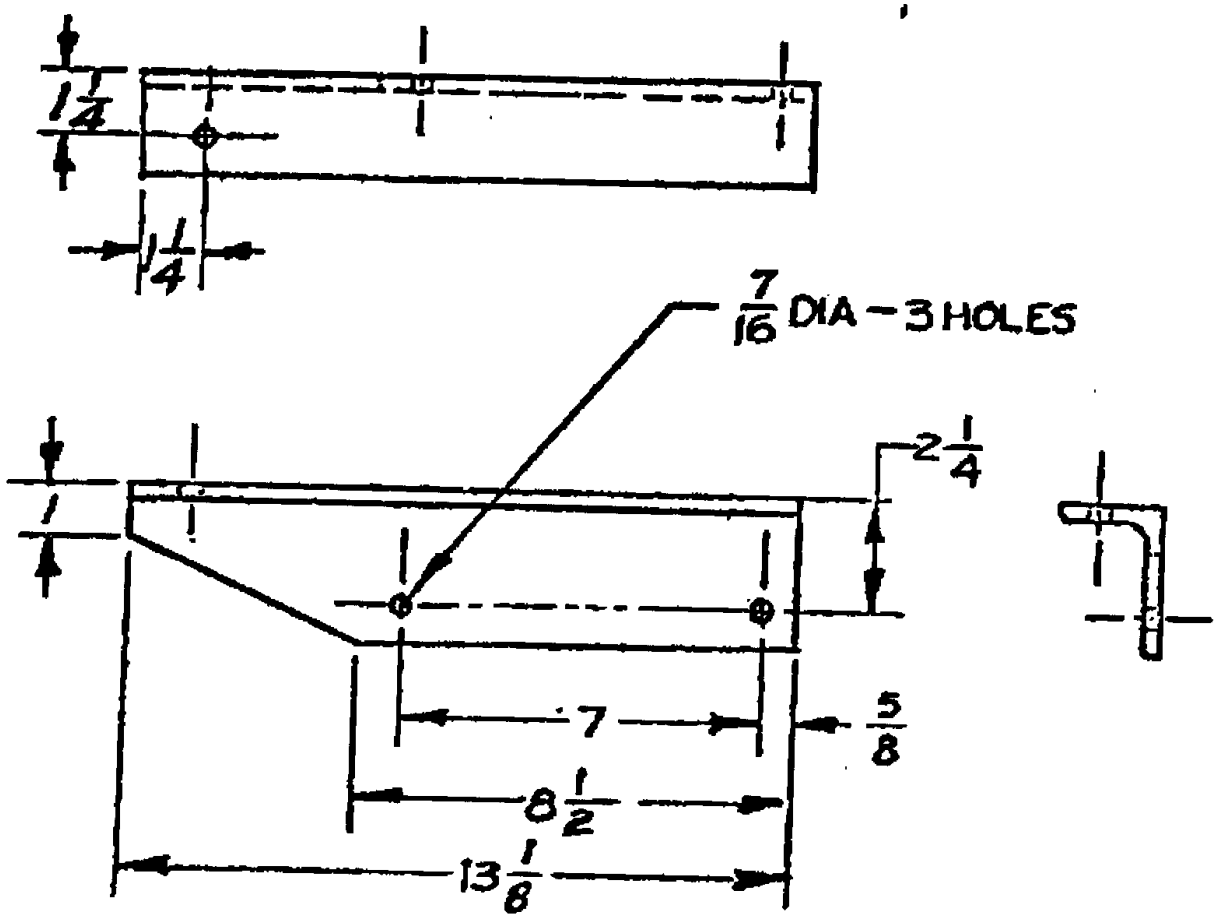


FRAME TO FENDER
INSTALLATION
FIGURE- D51 SHOWN
FIGURE- D52 OPPOSITE



NOTE:
USE EXISTING SCREWS, NUTS AND WASHERS

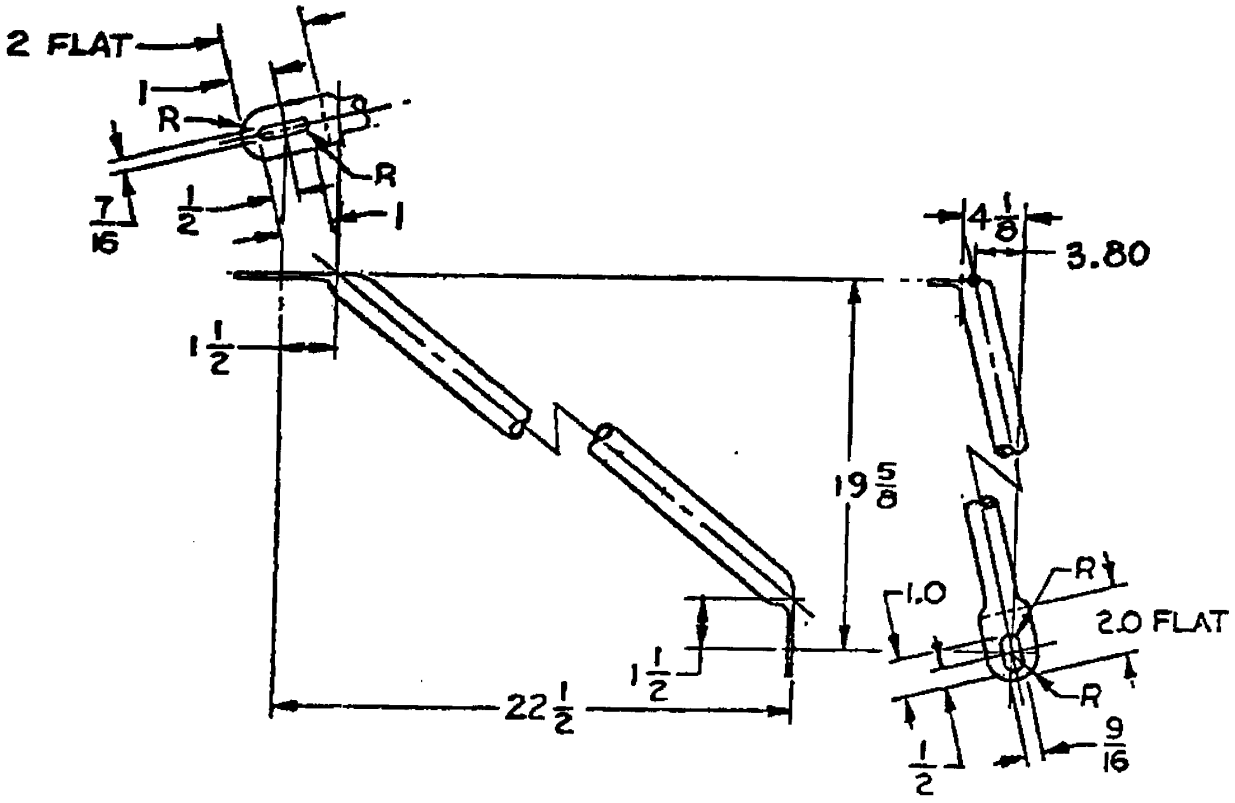
FRAME TO FENDER INSTALLATION
FIGURE D53 SHOWN
FIGURE D54 OPPOSITE



STEEL, CARBON ALLOY FOR WELDED STRUCTURES, 3 X 2 X 5/16.

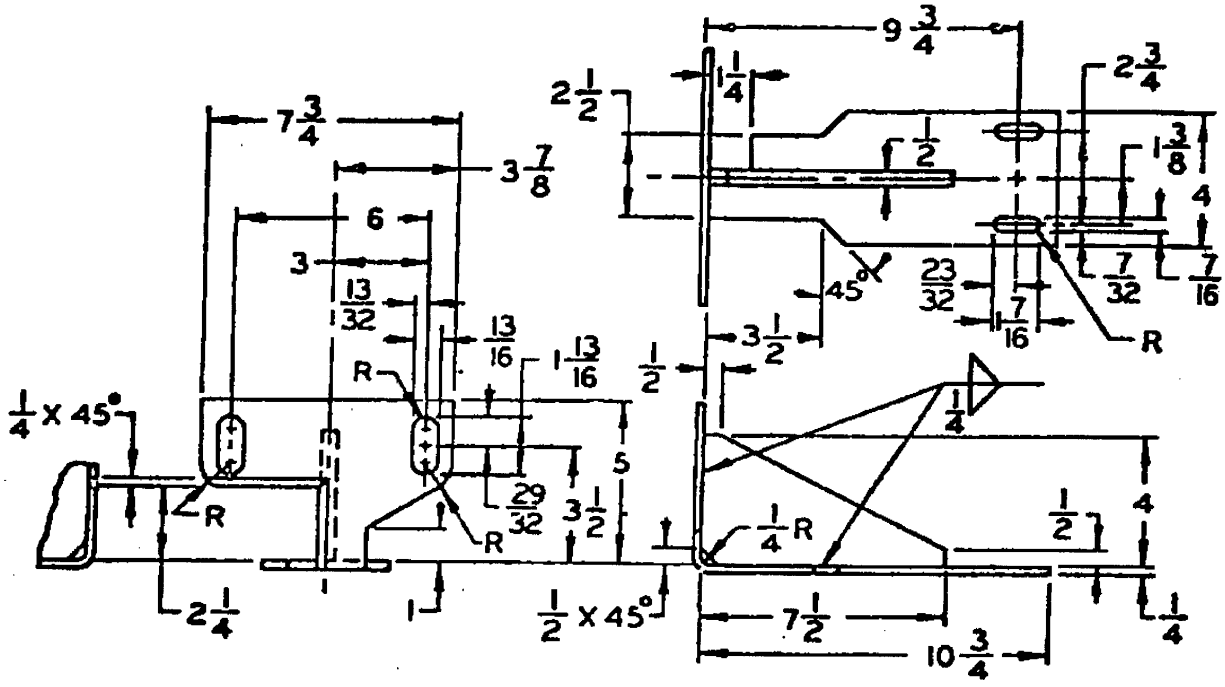
TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

FIGURE D55. Bracket, base frame.



TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.
TUBE, STEEL, WELDED, MT1010 TO MT1020 IN ACCORDANCE WITH ASTM A513 OR ASTM A519 1.00 OD X 0.058 WALL

FIGURE D56 (SHOWN) FIGURE D57 (OPPOSITE). Brace, frame.



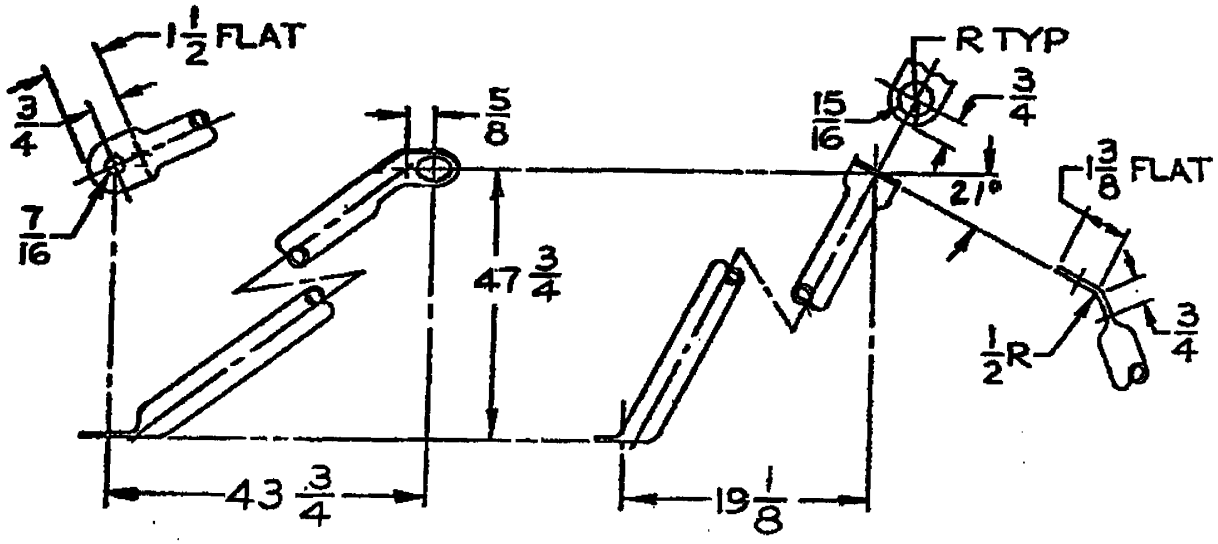
TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

REMOVE ALL BURRS AND SHARP EDGES

MATERIAL NOTE: STEEL PLATE SPEC ASTM A827.

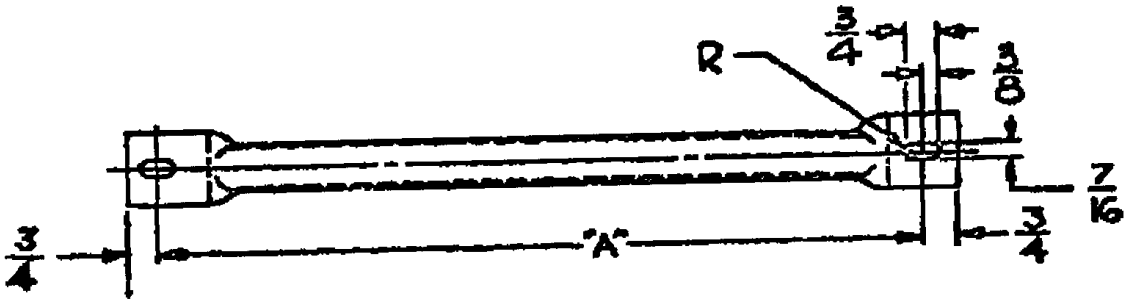
WELD NOTE- USE ELECTRODE FROM SPEC AWS A5.1.

FIGURE D58. Bracket, base frame.



TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.
TUBE, STEEL, WELDED, MT1010 TO MT1020 IN ACCORDANCE WITH ASTM A513 OR ASTM A519 1.00 OD X 0.058 WALL

FIGURE D59 (SHOWN, 2 REQ'D) FIGURE D60 (OPPOSITE, 1 REQ'D). Brace, frame.



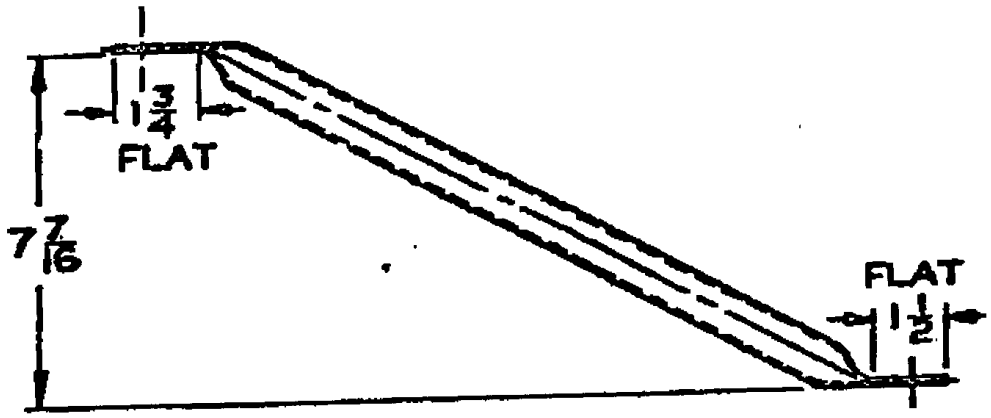
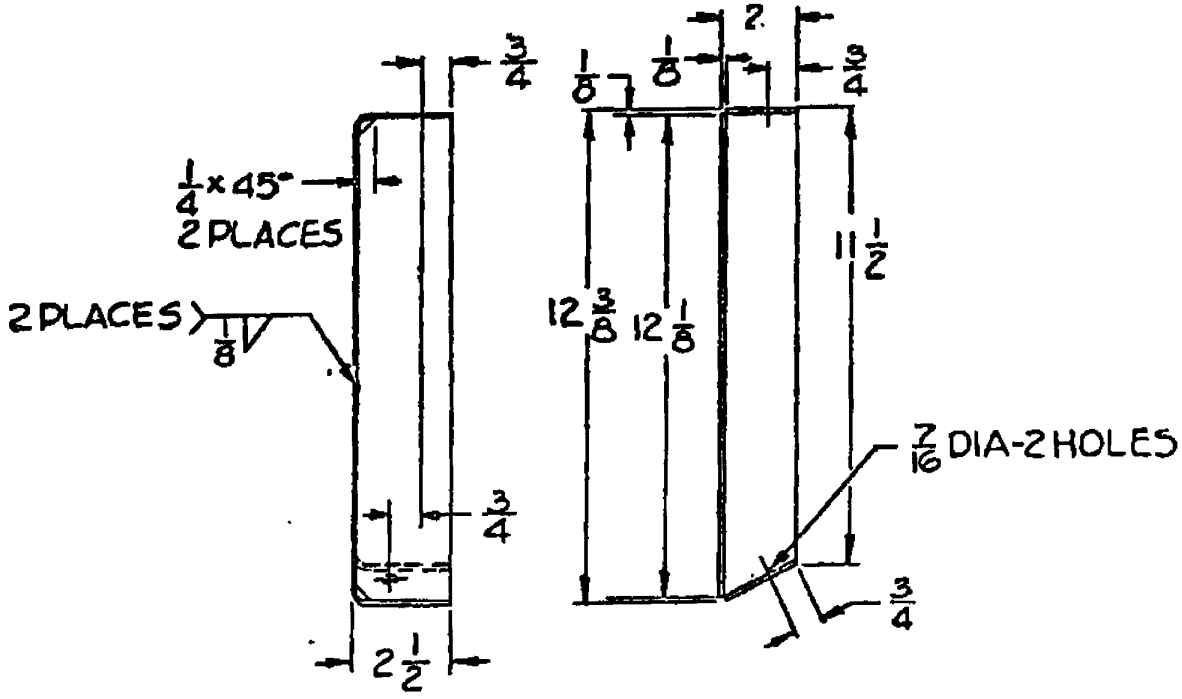


FIGURE NO.	REQ'D	"A"
FIG. D61	2	15 7/16
FIG. D62	1	12 5/16

TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.
TUBE, STEEL, WELDED, MT1010 TO MT1020 IN ACCORDANCE WITH ASTM A513 OR ASTM A519 I OD X 0.058 WALL

FIGURE D61 (SHOWN, 2 REQ'D, A=15 7/16) FIGURE D62 (OPPOSITE, 1 REQ'D, A=12 5/16). Tubing, base frame support.



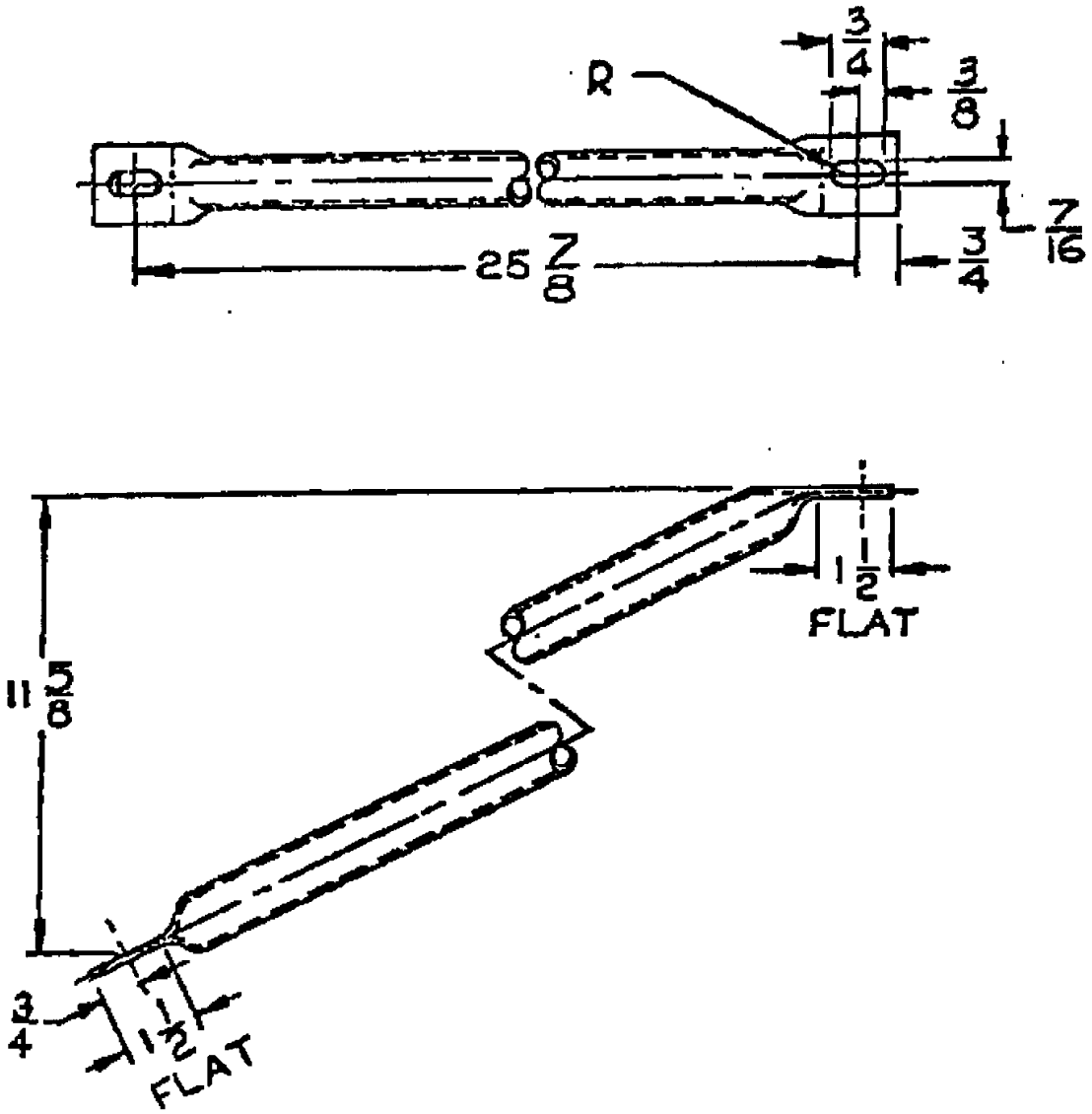
TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

REMOVE ALL BURRS AND SHARP EDGES

MATERIAL NOTE: STEEL PLATE SPEC ASTM A827.

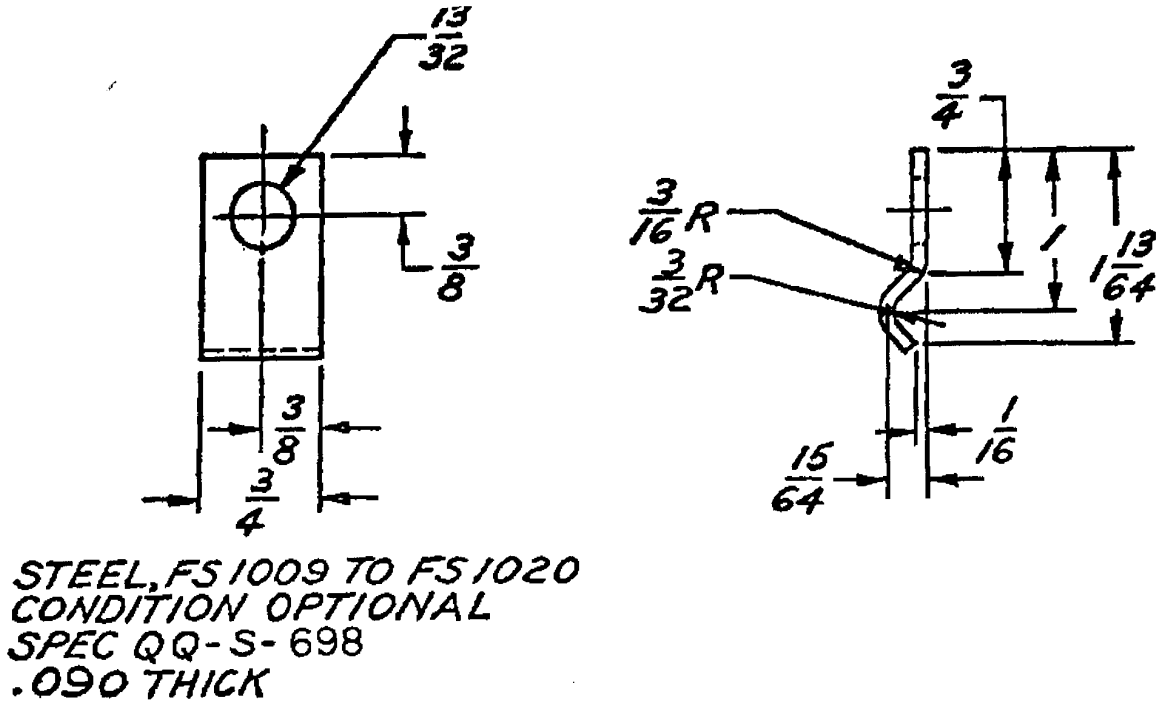
WELD NOTE- USE ELECTRODE FROM SPEC AWS A5.1.

FIGURE D63 (SHOWN) FIGURE D64 (OPPOSITE). Bracket, base frame.



TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.
TUBE, STEEL, WELDED, MT1010 TO MT1020 IN ACCORDANCE WITH ASTM A513 OR ASTM A519 I OD X 0.058 WALL

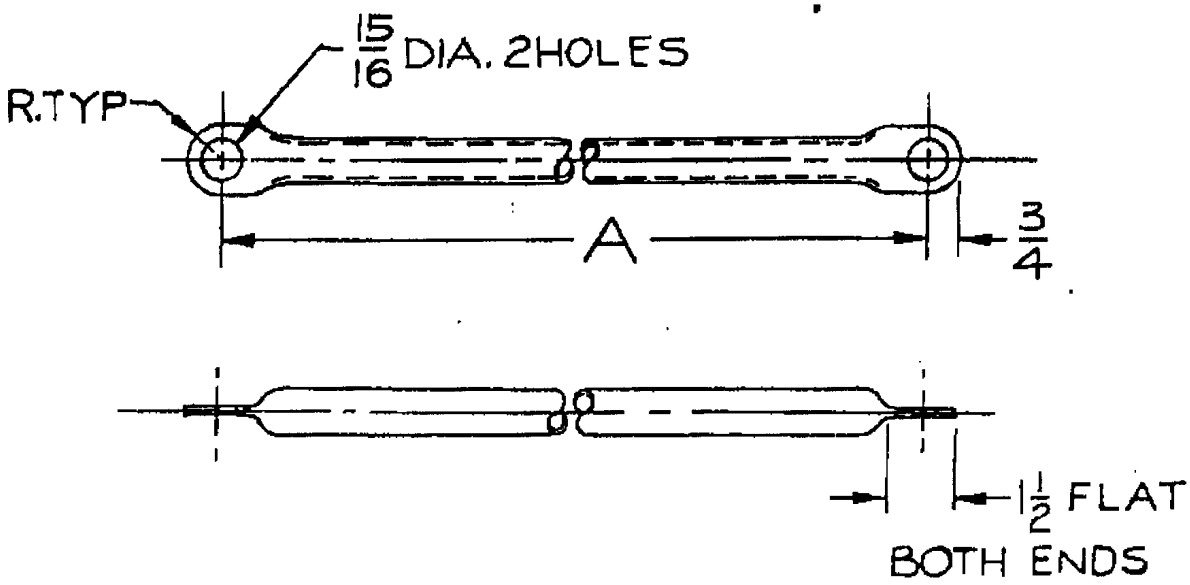
FIGURE D65. Tube, base frame support (2 req'd).



TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

FIGURE D66. Clamp (38 req'd)

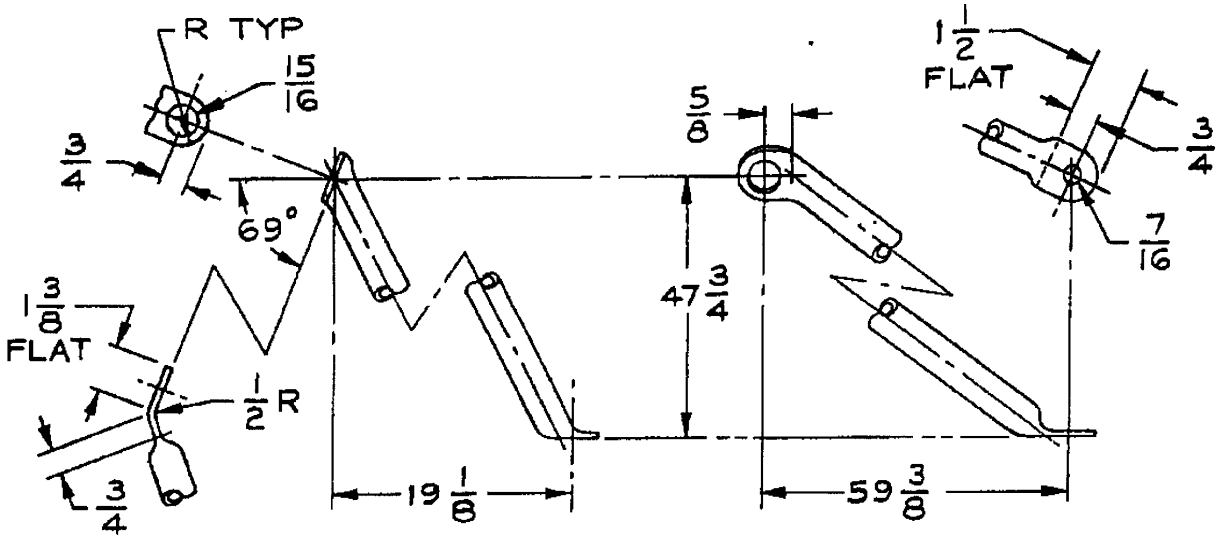
FIGURE D67				
FIGURE NUMBER	REQ'D	ORDNANCE PART NUMBER	DESCRIPTION	MATERIAL
D74	52	MS35223-112	SCREW, PAN HD. 3/8-16 UNC-2A x 1 ¼ LONG	CARBON STEEL CAD. PL.
D75	52	MS51967-8	NUT, HEX 3/8-16 UNC-2B	STEEL CADMIUM PLATE
D76	52	MS35338-46	WASHER, LOCK 3/8	CARBON STEEL CADMIUM PLATE
D77	68	MS15795-214	WASHER, PLAIN 3/8	STEEL CADMIUM PLATE
D78	38	425594	SCREW, LOCKWASHER, HEX HD 5/16-24 UNF-2A 1 ¼ LONG, TYPE 1	STEEL-CADMIUM PLATE
D79	32	MS35691-522	NUT, JAM, HEX 5/16-24 UNF-2B	STEEL-CADMIUM PLATE
D80	38	MS51968-4	NUT, HEX 5/16-24 UNF-2B	STEEL-CADMIUM PLATE
D81	38	MS35338-45	WASHER, LOCK 5/16	CARBON STEEL CADMIUM PLATE
D82	2	423573	SCREW, LOCKWASHER HEX HD 3/8-16 UNC-2A 1 ¼ LONG, TYPE 1	STEEL-CADMIUM PLATE
D83	6	MS35223-98	SCREW, PAN HEAD 5/16-18UNC-2A 1 LONG	STEEL-CADMIUM PLATE



TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

TUBE, STEEL, WELDED, MT1010 TO MT1020 IN ACCORDANCE WITH ASTM A513 OR ASTM A519 I OD X 0.058 WALL

FIGURE D42 (A=33 25/32), FIGURE D68 (A=28 25/32), FIGURE D69 (A=38 25/32).
Link, frame.

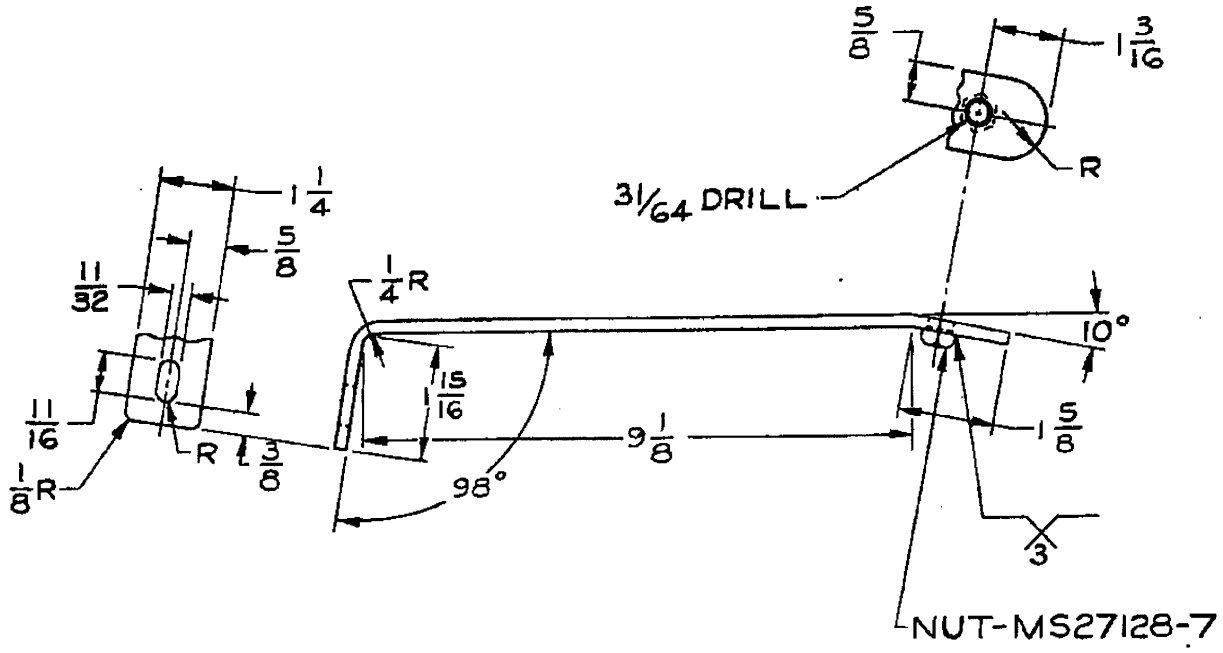


TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

TUBE, STEEL, WELDED, MT1010 TO MT1020 IN ACCORDANCE WITH ASTM A513 OR ASTM A519 I OD X 0.058 WALL

BREAK ALL SHARP EDGES.

FIGURE D70. Brace, frame.



TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

REMOVE ALL BURRS AND SHARP EDGES

MATERIAL NOTE: STEEL PLATE SPEC ASTM A827.

FIGURE D71. Bracket, tie down (6 req'd).

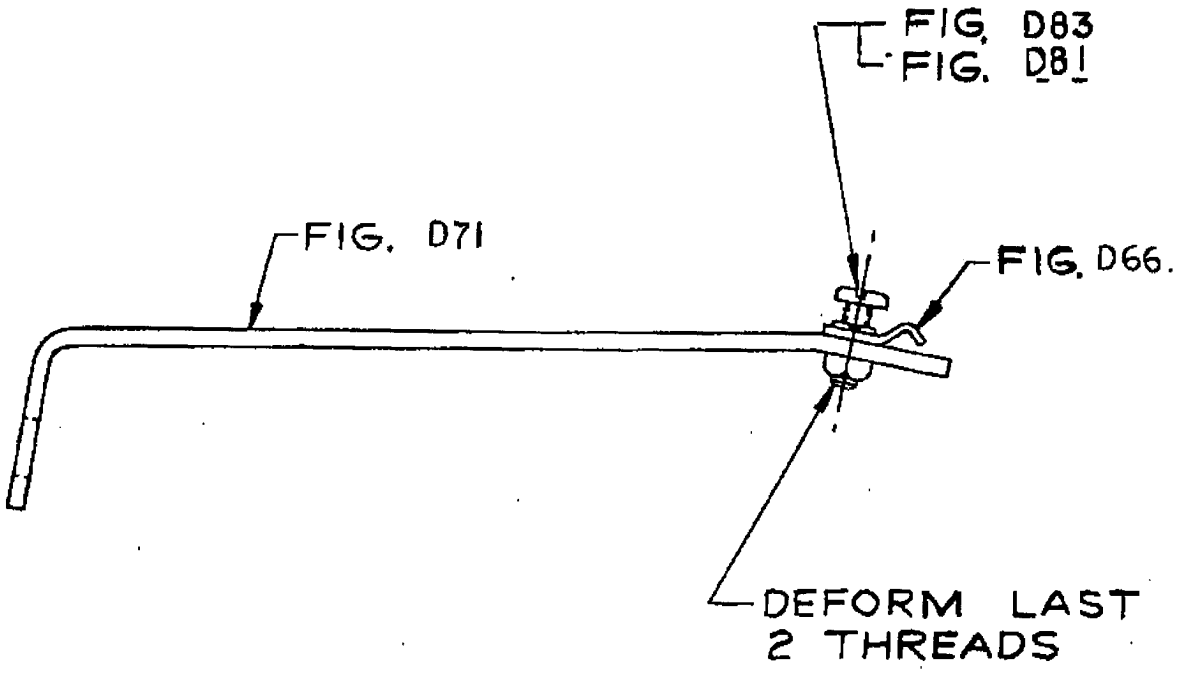
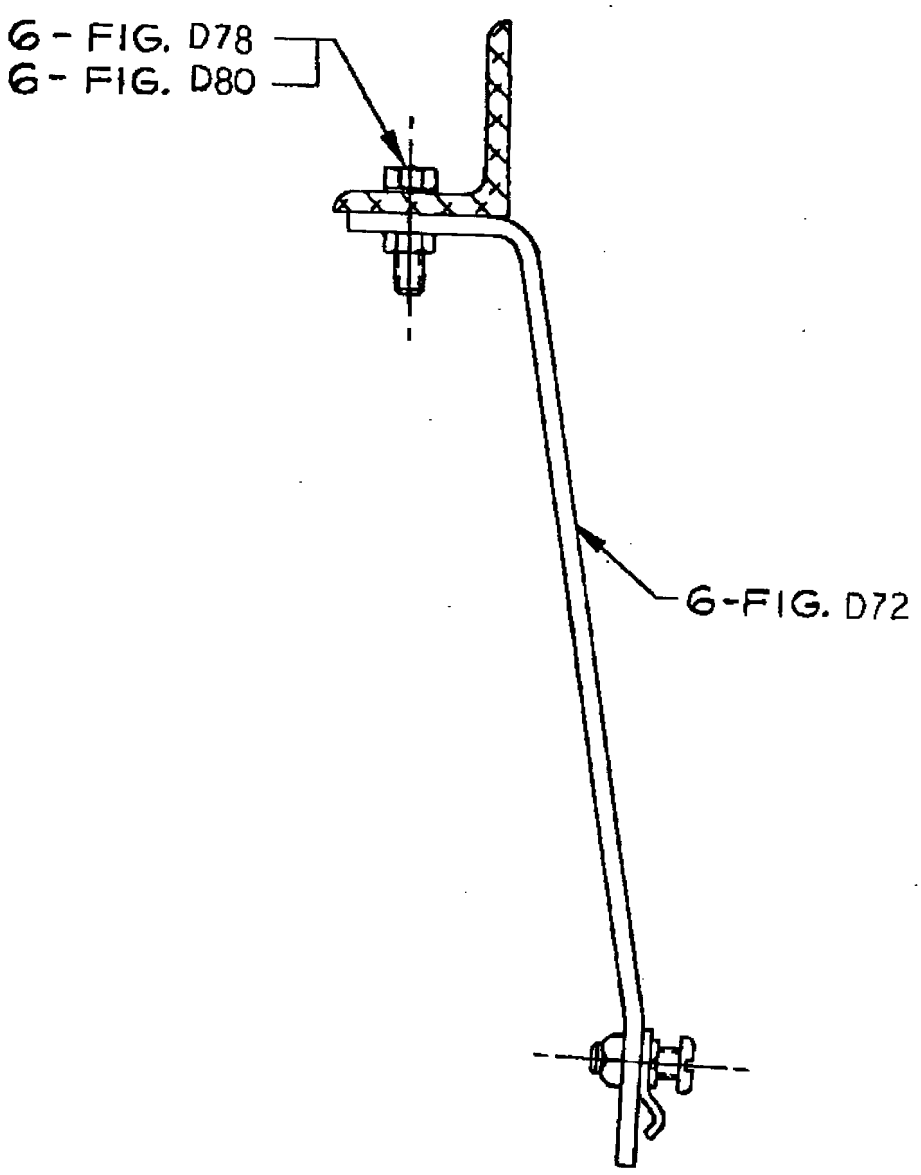


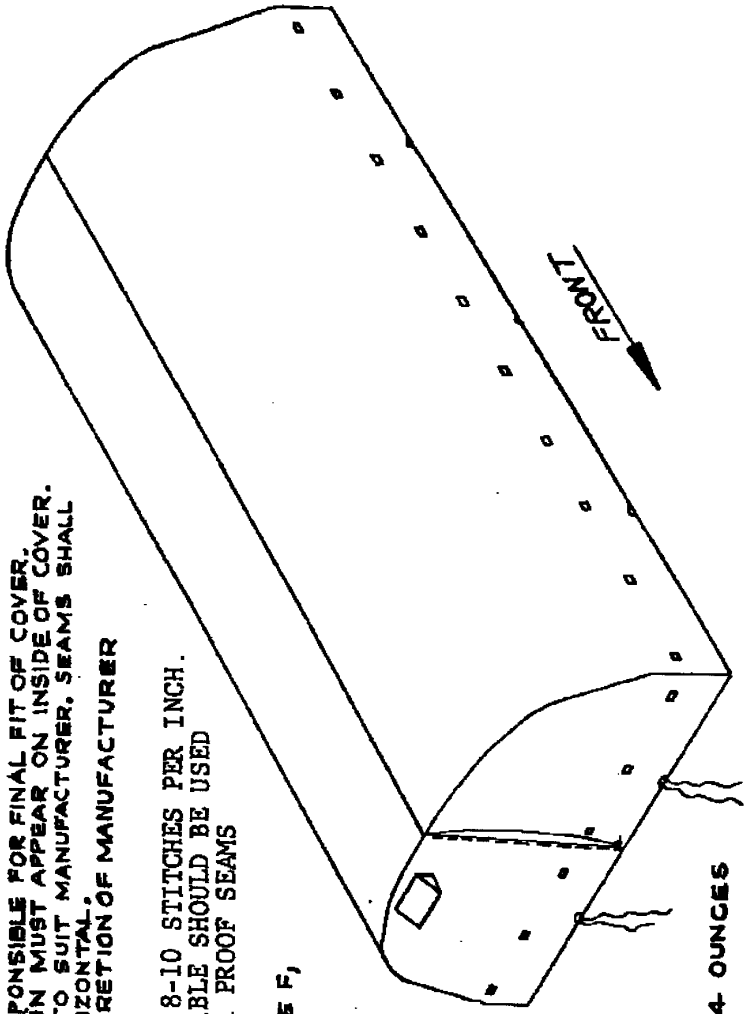
FIG. D83
FIG. D81
FIG. D71
FIG. D66.
DEFORM LAST
2 THREADS

COVER, VENTILATOR, AND ATTACHMENT FOR CLOSURE M728 FIGURE D84 SHEET 1 OF 1	
FIG NO.	DESCRIPTION
D85	COVER ASSEMBLY
D86	PLAN VIEW, COVER
D87	LEFT SIDE ELEVATION
D88	SECTION VIEWS FOR FIGURE 101
D89	FRONT ELEVATION
D90	REAR ELEVATION
D91	SECTION VIEWS FOR FIGURES 103 AND 104
D92	LEFT SIDE AND REAR ELEVATION
D93	DET A AND CROSS SECTION ON FIGURE 106
D94	VENT, COVER
D95	VENT, SIDE
D96	VENT, SIDE
D97	VENT, REINFORCEMENT
D98	BOOT
D99	VIEW A-A
D100	REINFORCEMENT
D101	FRONT VIEW X-X
D102	DETAIL D
D103	BINDING
D104	PULLEY ASSEMBLY
D105	PULLEY INSTALLATION, FRONT AND REAR
D106	SECTION AND DETAIL FOR FIGURE 101
D107	ROD
D108	ROD
D109	ROD, TIE DOWN
D110	ROD, TIE DOWN
D111	STRIP, TIE DOWN
D112	STRIP, TIE DOWN
D113	STRIP, TIE DOWN
D114	REINFORCEMENT, TIE DOWN
D115	REINFORCEMENT
D116	HARDWARE, CLOSURE ATTACHMENT



SECTION A-A

FIG. D73



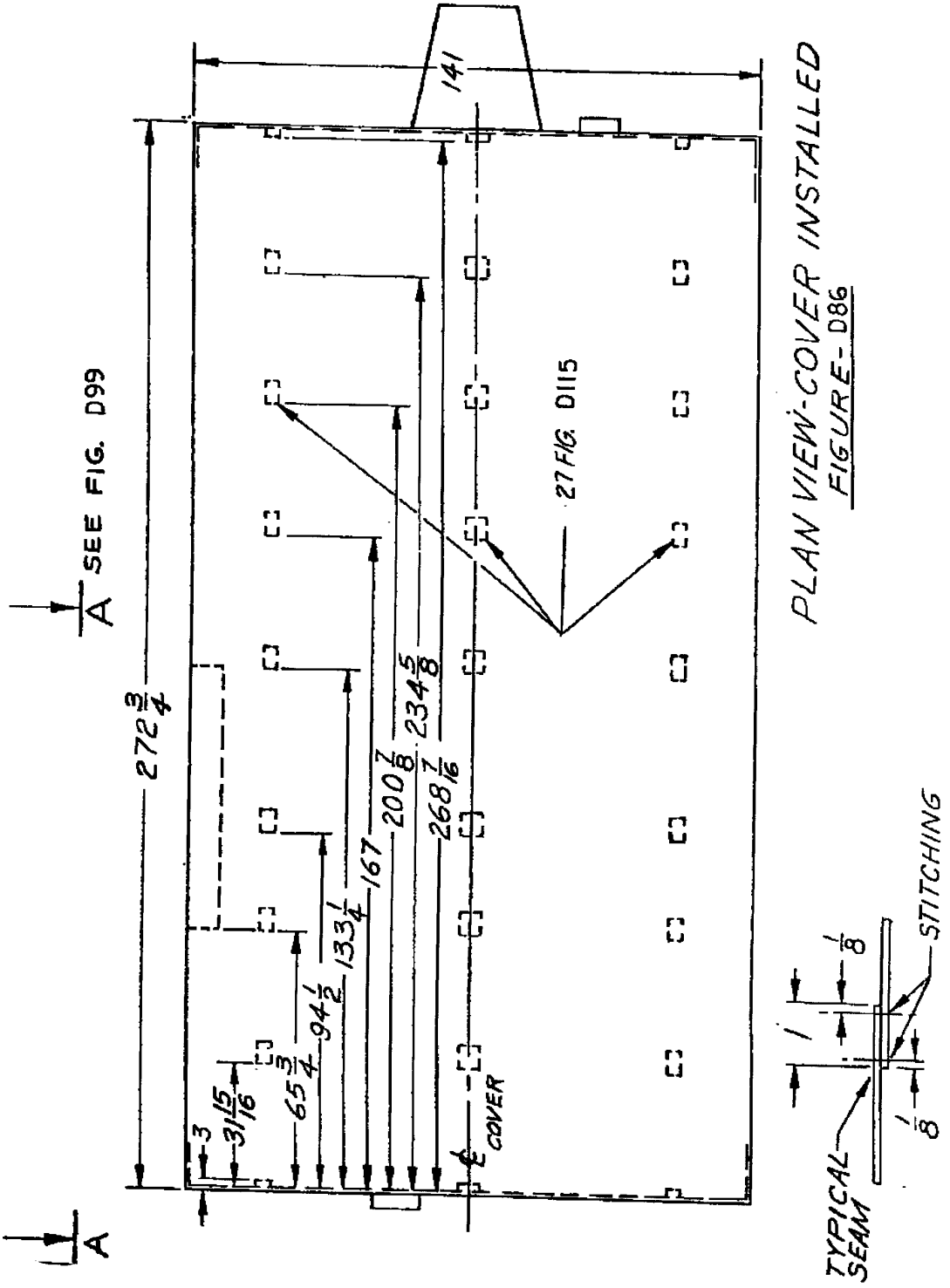
NOTES:
MANUFACTURER SHALL BE RESPONSIBLE FOR FINAL FIT OF COVER.
MANUFACTURER'S IDENTIFICATION MUST APPEAR ON INSIDE OF COVER.
SEAM ALLOWANCE MAY VARY TO SUIT MANUFACTURER. SEAMS SHALL BE EITHER VERTICAL OR HORIZONTAL.
MATERIAL WIDTH LEFT TO DISCRETION OF MANUFACTURER

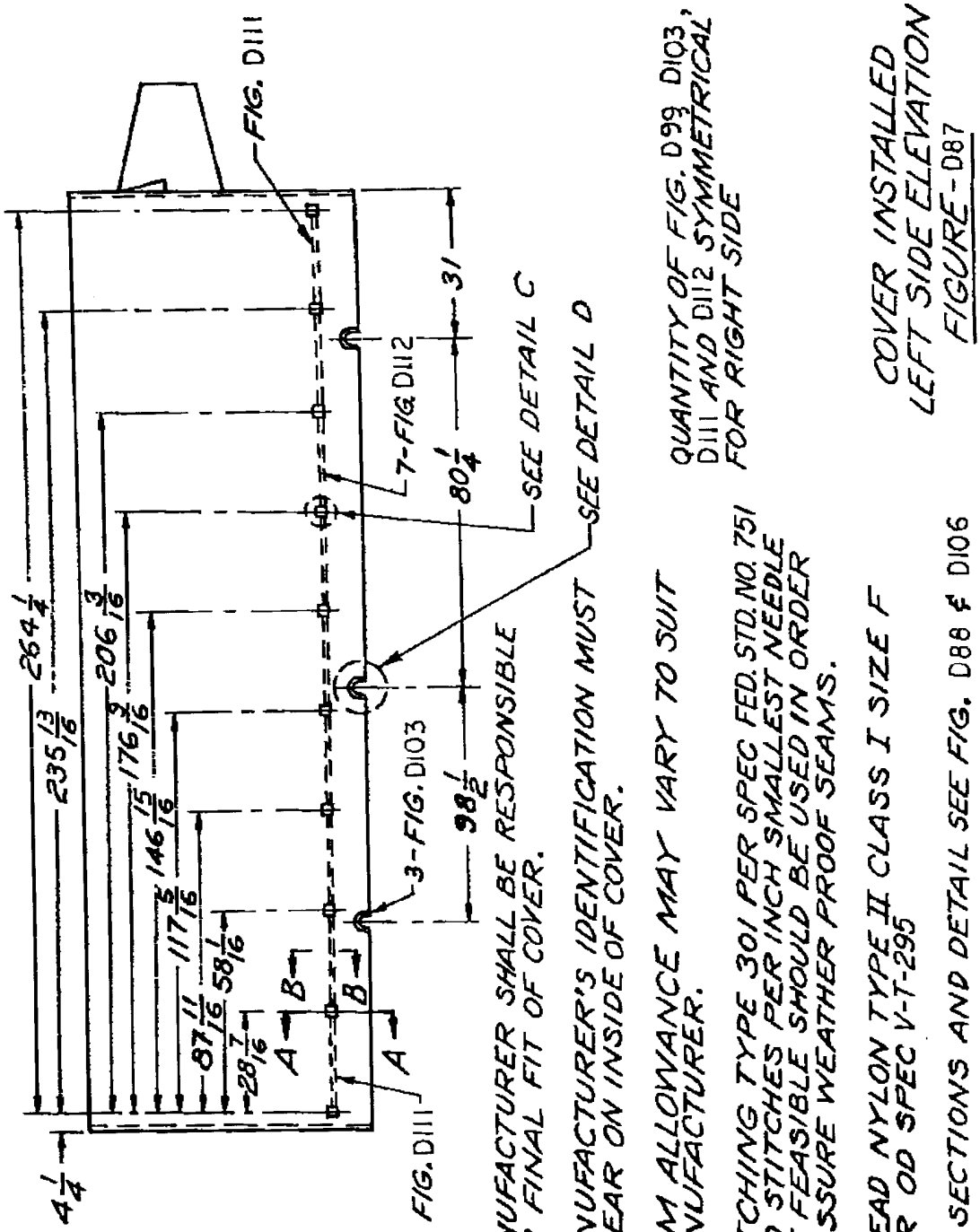
STITCHING:
TYPE 301 PER FED-STD-751, 8-10 STITCHES PER INCH.
SMALLEST NEEDLE SIZE FEASIBLE SHOULD BE USED
IN ORDER TO ASSURE WEATHER PROOF SEAMS

THREAD:
NYLON, TYPE II, CLASS I, SIZE F,
COLOR OD, V-T-295

MATERIAL FOR CLOTH TO BE:
TYPE II, CLASS 3
SPECIFICATION MIL-C-20696
MINIMUM WEIGHT SHALL BE 14 OUNCES
BALANCED SURFACE COATING
SHALL BE ACCOMPLISHED
COLOR GREEN NO. 34087
OF FED-STD-595

COVER ASSEMBLY
FIGURE- D85


PLAN VIEW-COVER INSTALLED
FIGURE- D86
SEE FIG. D99
A
A
141
272 3/4
27 FIG. D115
234 5/8
200 7/8
268 7/16
167
133 1/4
94 1/2
65 3/4
31 15/16
3
℄ COVER
TYPICAL SEAM
STITCHING
1/8
1
1/8



NOTES

MANUFACTURER SHALL BE RESPONSIBLE FOR FINAL FIT OF COVER.

MANUFACTURER'S IDENTIFICATION MUST APPEAR ON INSIDE OF COVER.

SEAM ALLOWANCE MAY VARY TO SUIT MANUFACTURER.

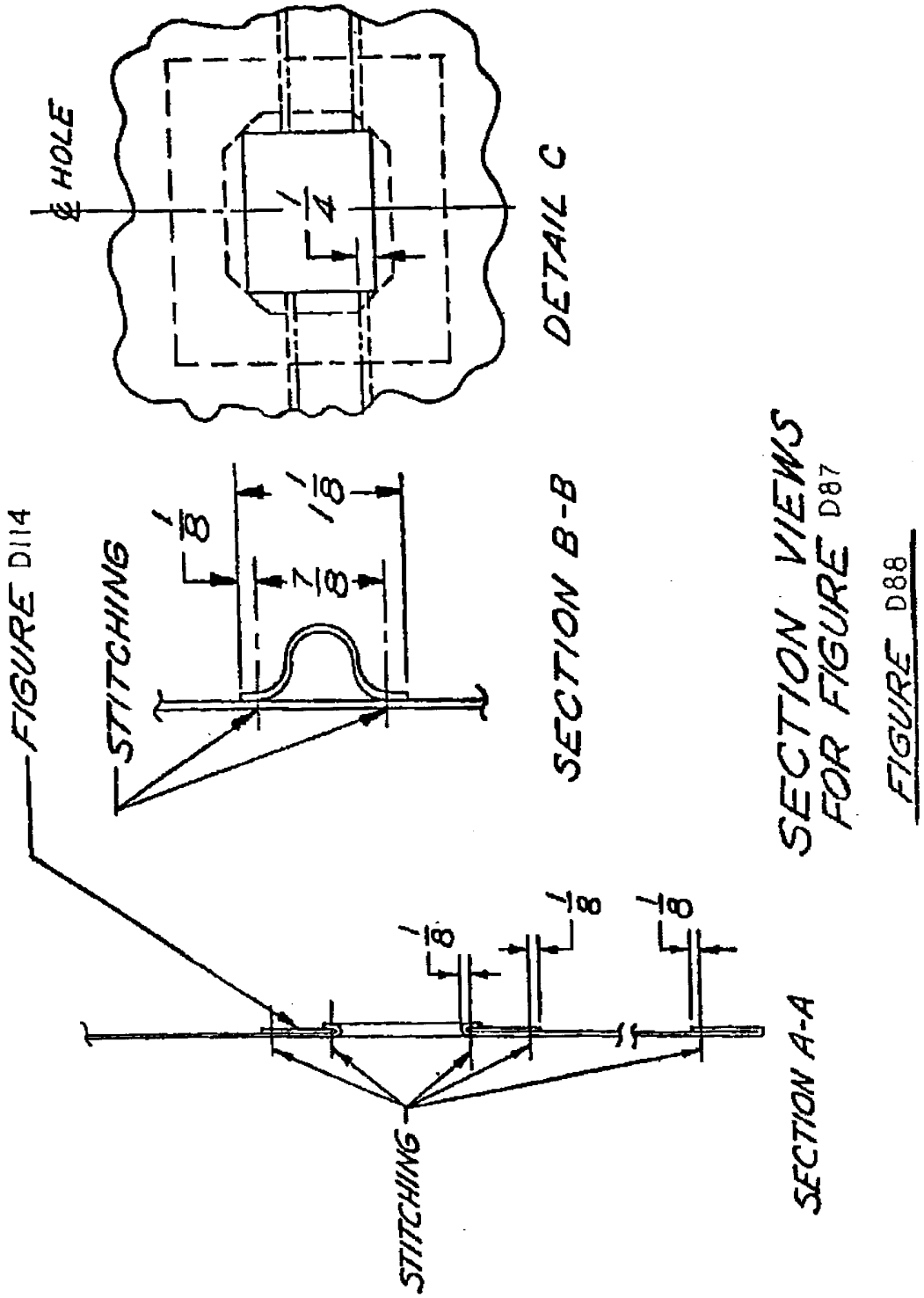
STITCHING TYPE 301 PER SPEC FED. STD. NO. 751 8-10 STITCHES PER INCH SMALLEST NEEDLE SIZE FEASIBLE SHOULD BE USED IN ORDER TO ASSURE WEATHER PROOF SEAMS.

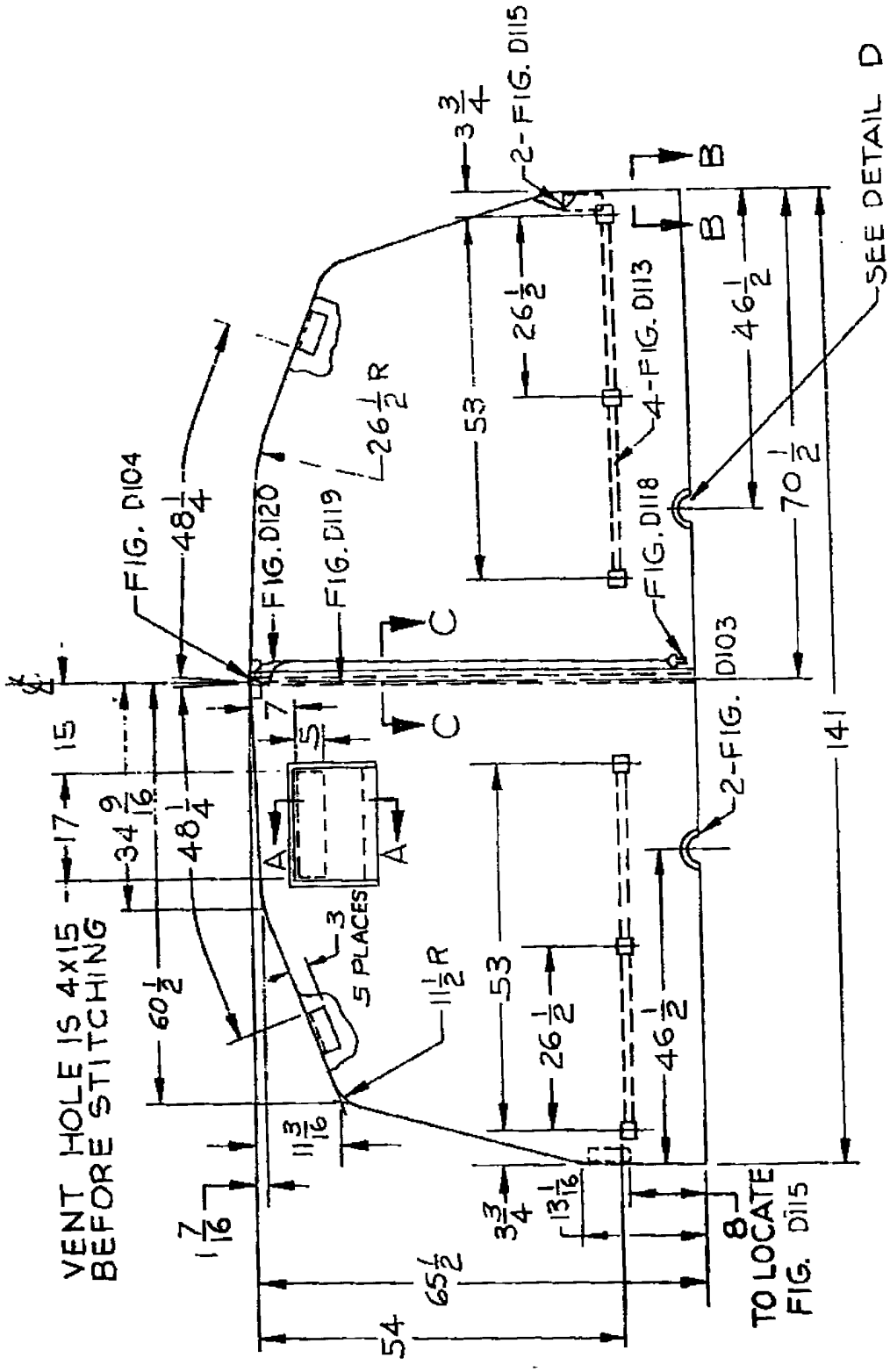
THREAD NYLON TYPE II CLASS I SIZE F COLOR OD SPEC V-T-295

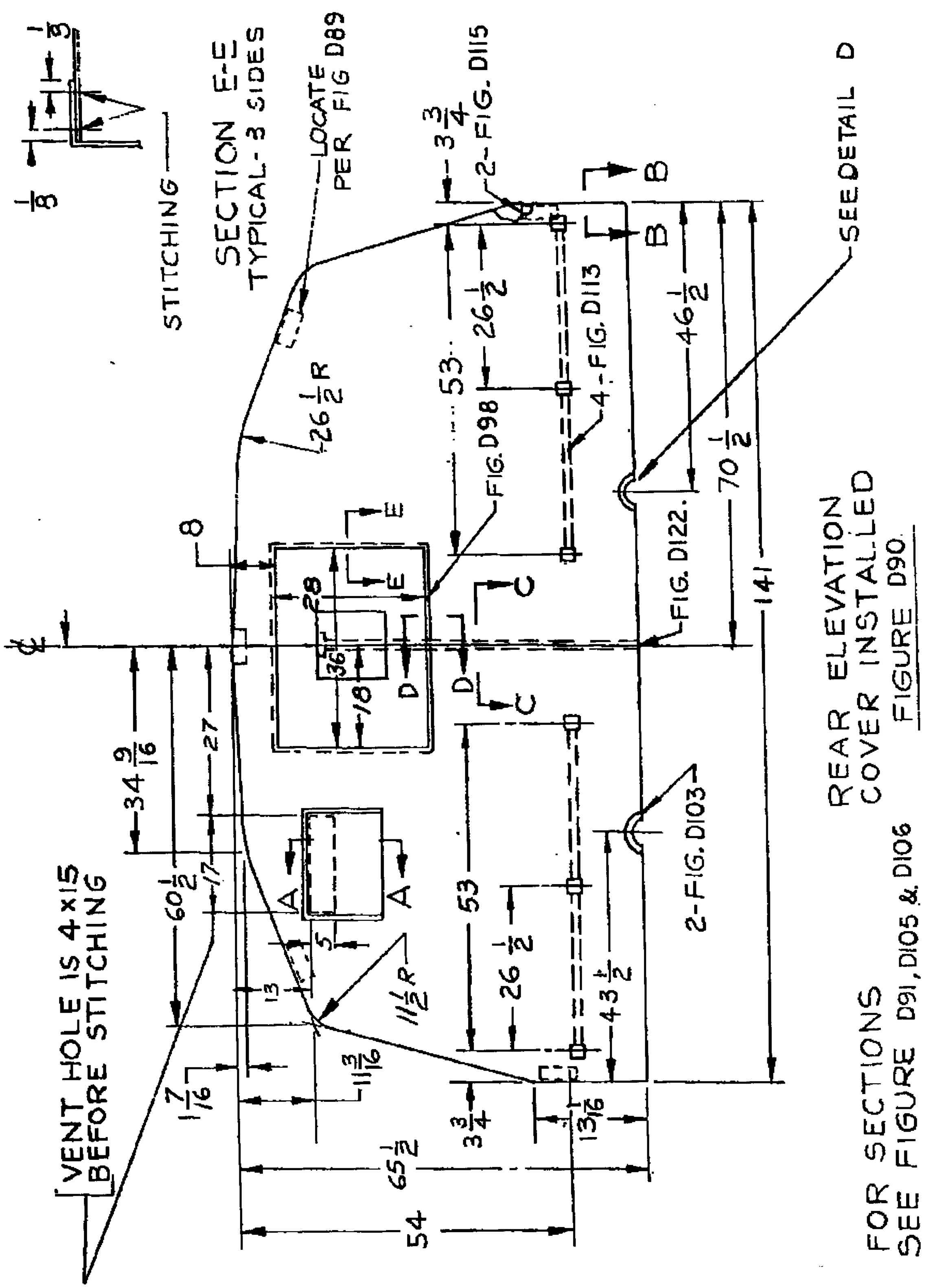
FOR SECTIONS AND DETAIL SEE FIG. D88 & D106

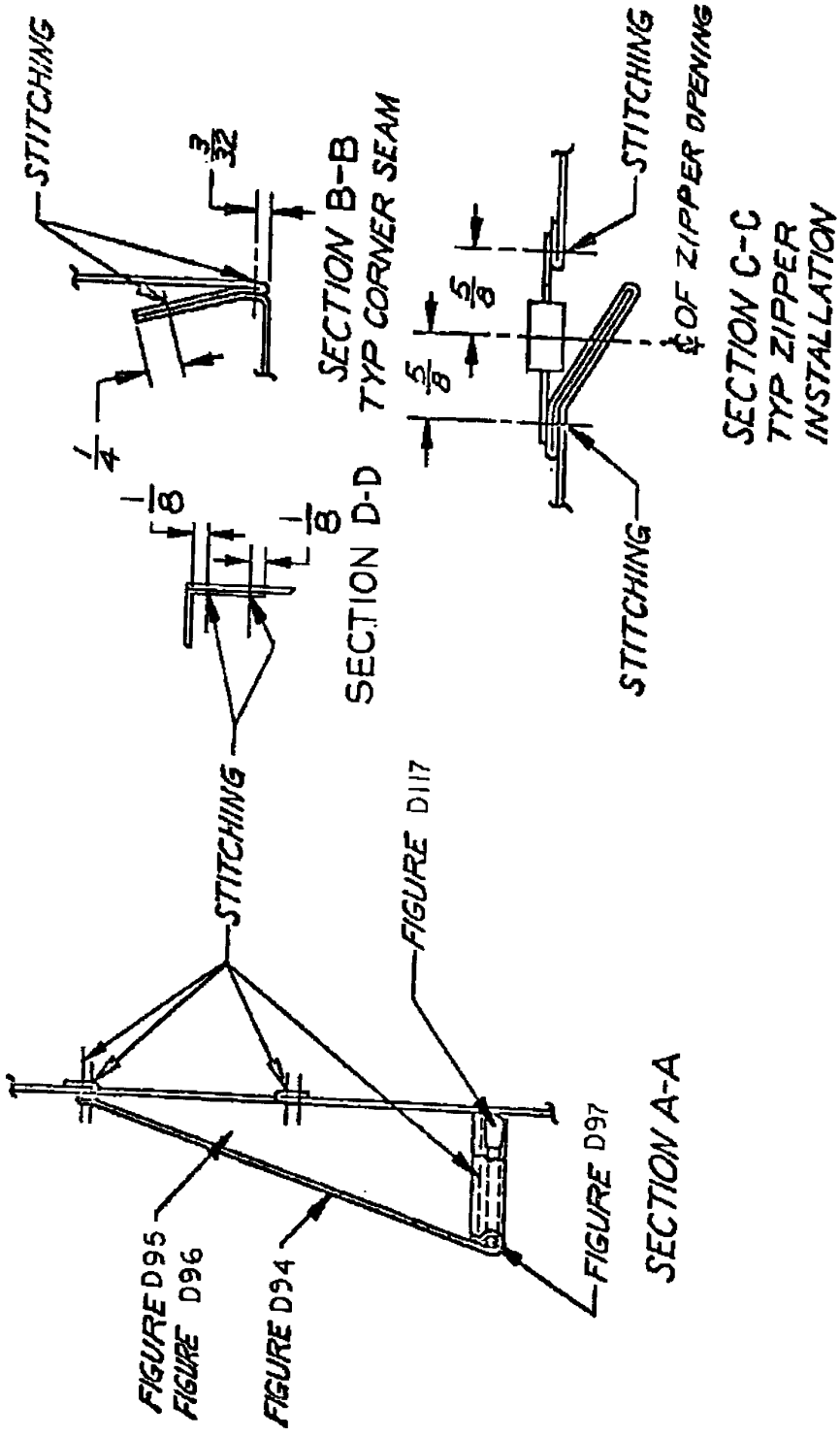
QUANTITY OF FIG. D99, D103, D111 AND D112 SYMMETRICAL FOR RIGHT SIDE

COVER INSTALLED LEFT SIDE ELEVATION FIGURE - D87

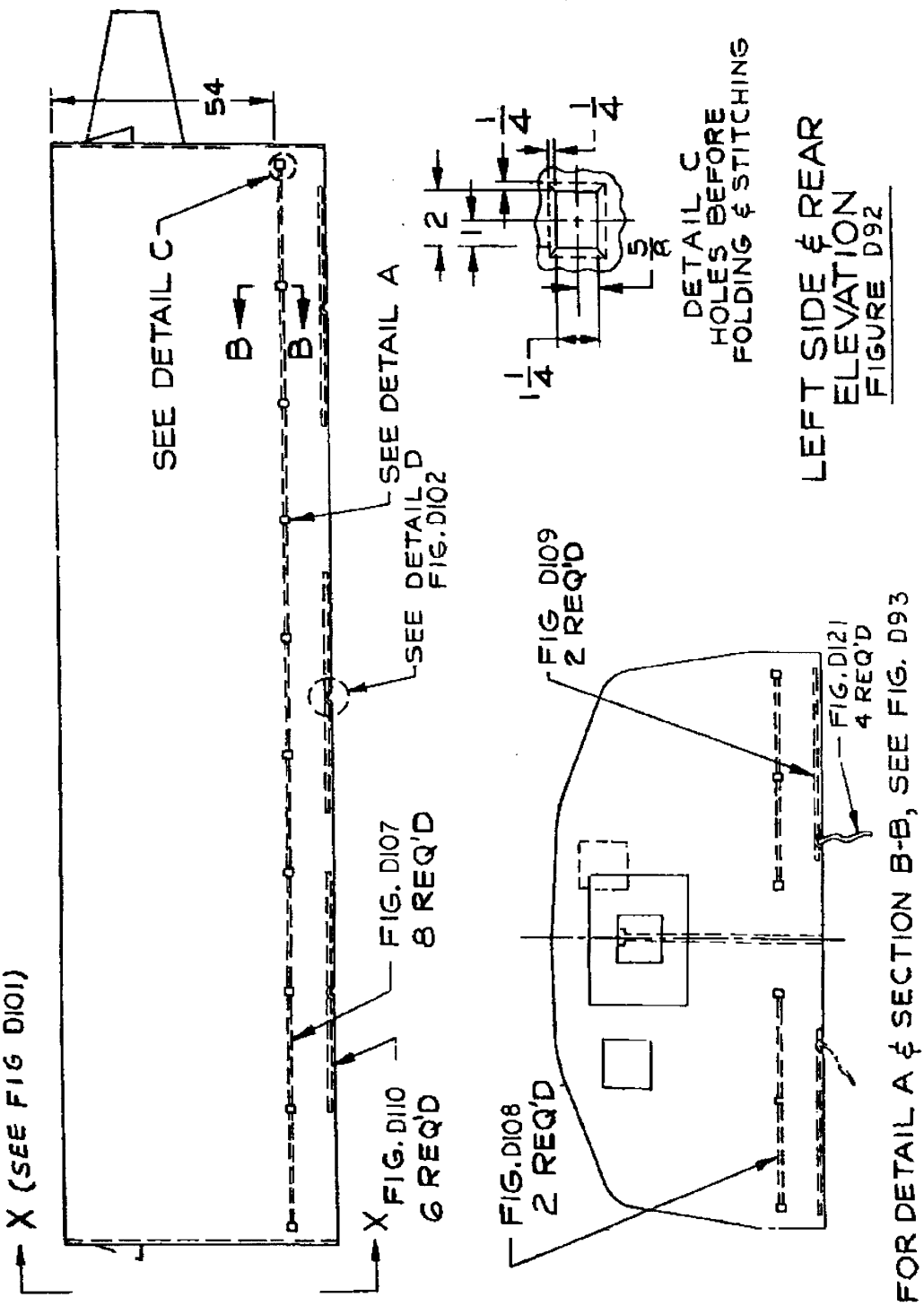

℄ HOLE
1/4
DETAIL C
STITCHING
1/8
1/8
7/8
1/16
SECTION B-B
FIGURE D114
1/8
1/8
1/8
STITCHING
SECTION A-A
SECTION VIEWS
FOR FIGURE D87
FIGURE D88


VENT HOLE IS 4X15 BEFORE STITCHING
FIG. D104
FIG. D120
FIG. D119
FIG. D118
FIG. D103
2-FIG. D115
4-FIG. D113
2-FIG.
SEE DETAIL D
TO LOCATE FIG. D115
5 PLACES
FRONT ELEVATION COVER INSTALLED FIGURE D89
FOR SECTIONS SEE FIGURE D91, D105 & D106

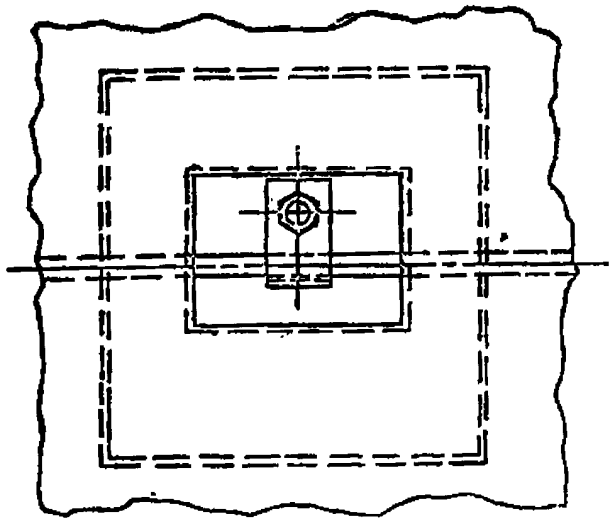

REAR ELEVATION
COVER INSTALLED
FIGURE D90
FOR SECTIONS
SEE FIGURE D91, D105 & D106
SECTION E-E
TYPICAL - 3 SIDES
STITCHING
LOCATE PER FIG D89
2-FIG. D115
4-FIG. D113
FIG. D98
FIG. D122.
2-FIG. D103
SEE DETAIL D
VENT HOLE IS 4 x 15
BEFORE STITCHING



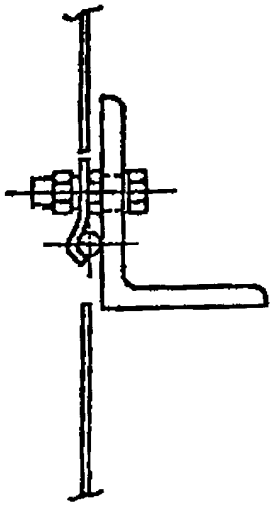
SECTION VIEW, FOR FIGURE D89 & D90
FIGURE D91


54
SEE DETAIL C
B
B
SEE DETAIL A
SEE DETAIL D
FIG. D102
FIG. D107
8 REQ'D
FIG. D110
6 REQ'D
X (SEE FIG D101)
X
1/4
1/4
2
1
5/8
1 1/4
DETAIL C
HOLES BEFORE
FOLDING & STITCHING
LEFT SIDE & REAR
ELEVATION
FIGURE D92
FIG. D109
2 REQ'D
FIG. D121
4 REQ'D
FIG. D108
2 REQ'D
FOR DETAIL A & SECTION B-B, SEE FIG. D93

121

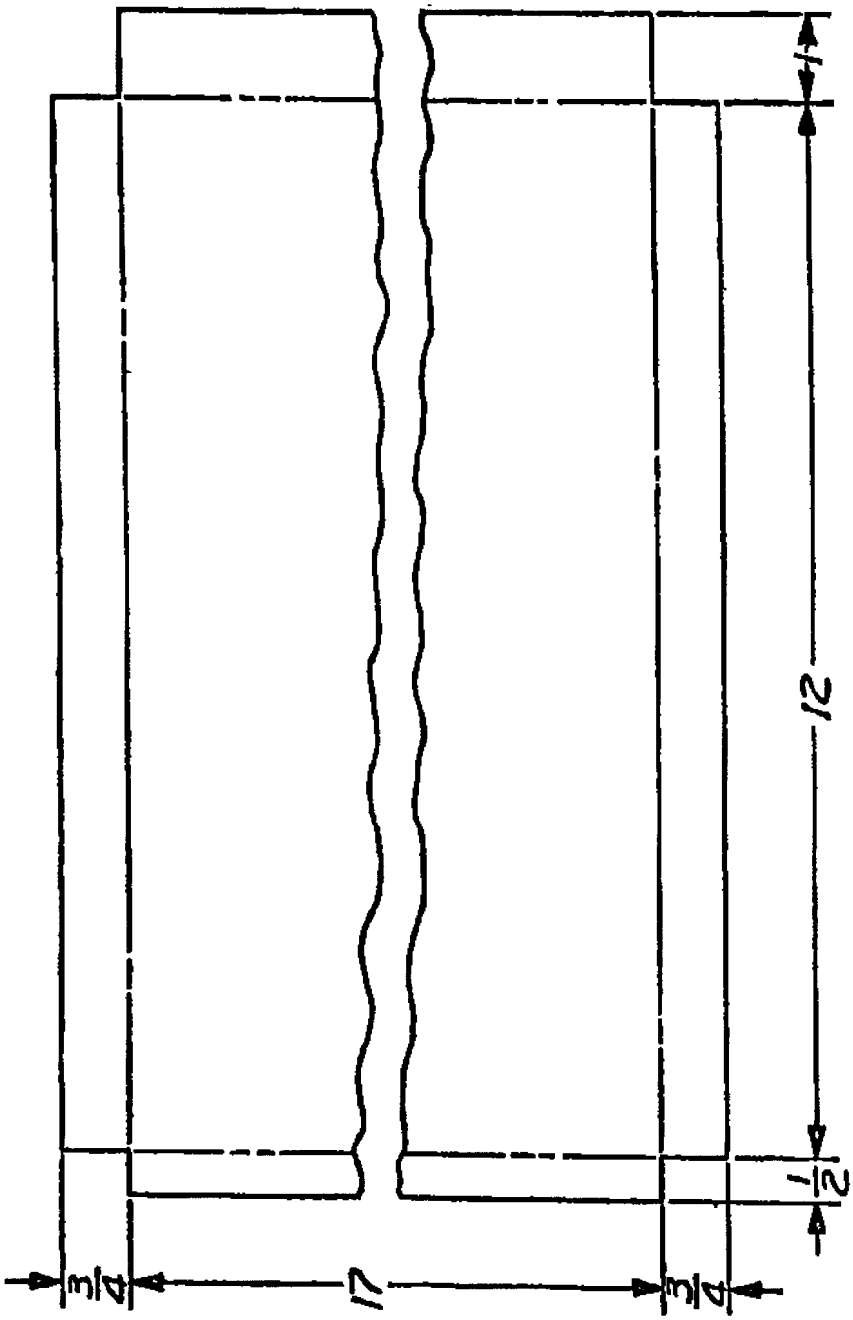


DETAIL-A
TYPICAL 32 PLACES



SECTION B-B
TYPICAL 32 PLACES

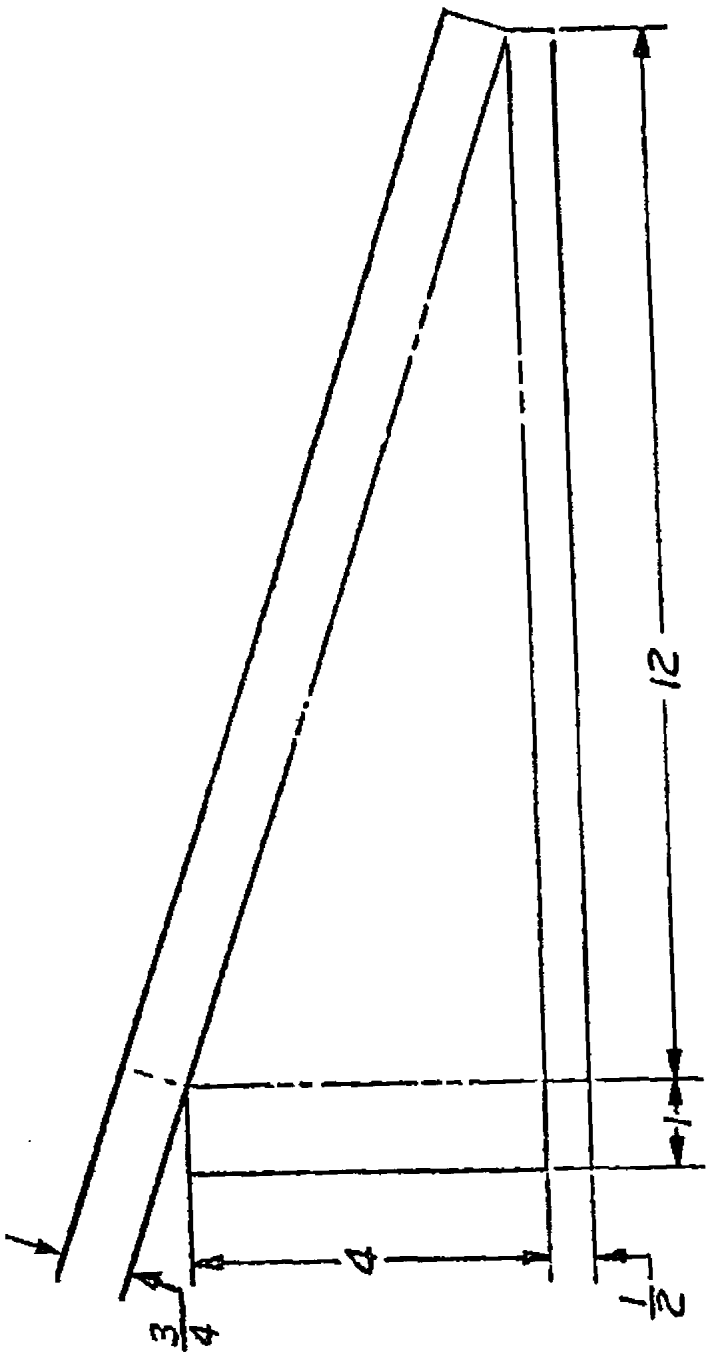
DETAIL-A-AND CROSS SECTION ON FIG- D92
FIG- D93



VENT, COVER
FIGURE- D94
2 REQ'D

FOR MATERIAL NOTE
SEE FIGURE- D85

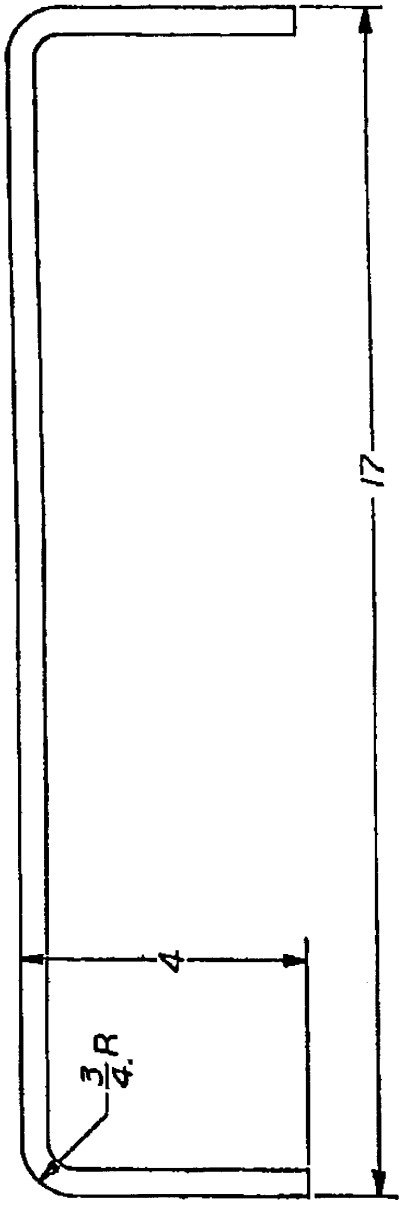
——— FOLD LINE



VENT, SIDE
FIGURE D95 SHOWN - 2 REQD
FIGURE D94 OPPOSITE - 2 REQD

FOR MATERIAL NOTE
SEE FIGURE - D85

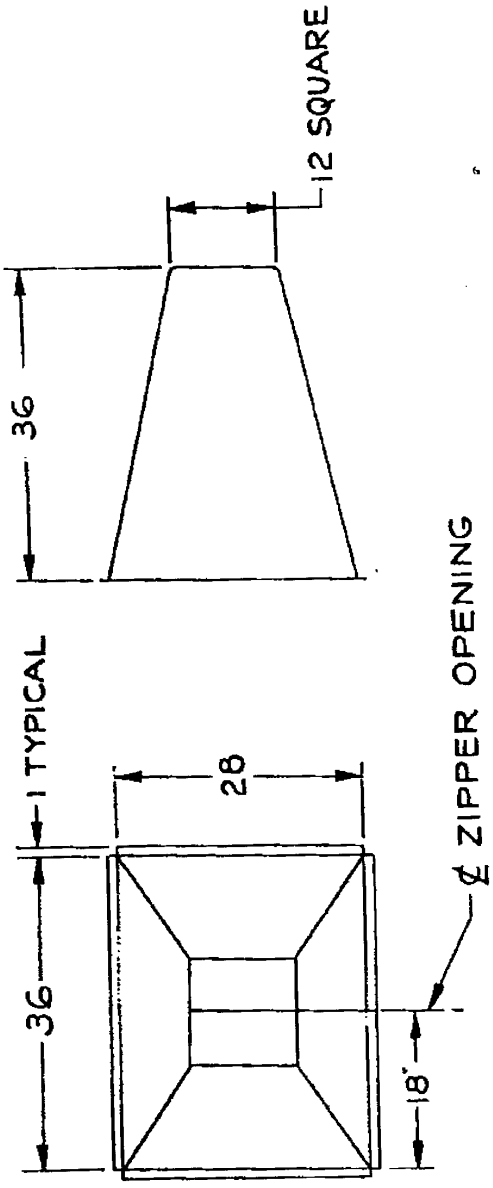
——— FOLD LINE



STEEL BAR, CARBON
C1010 TO C1020
IN ACCORDANCE WITH
ASTM-A108 3/8 DIA

VENT REINFORCEMENT
FIGURE - D97
2 REQ'D

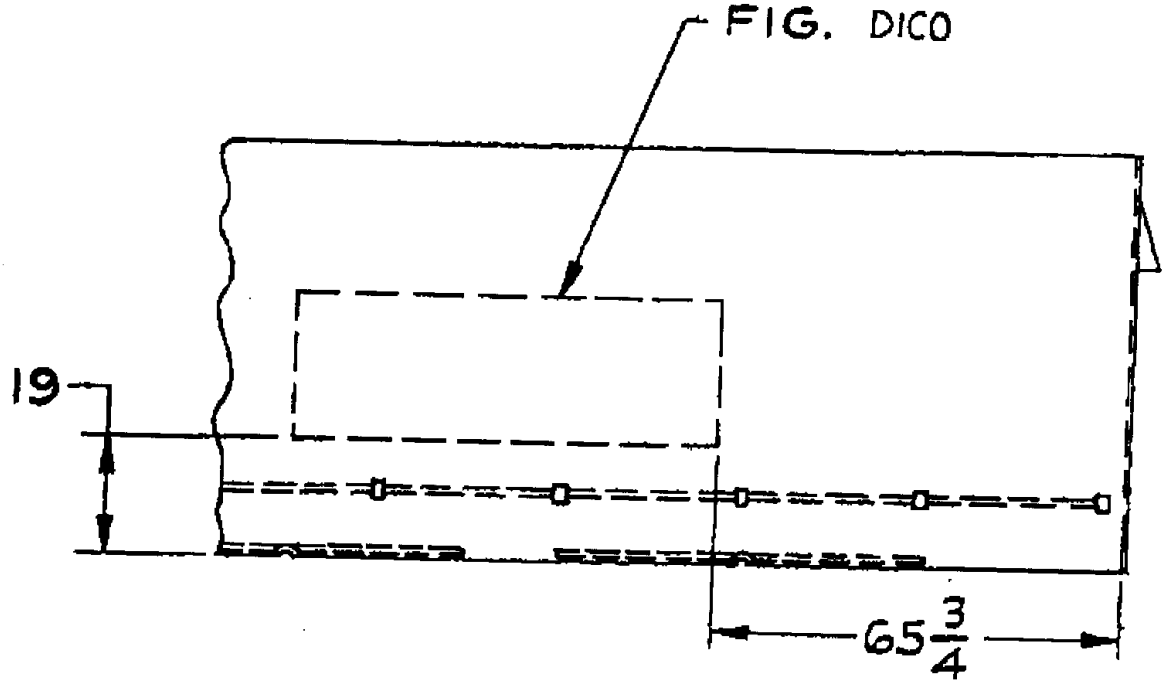
TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY
TOP COAT, COLOR F.G., SPEC MIL-C-46168.



BOOT

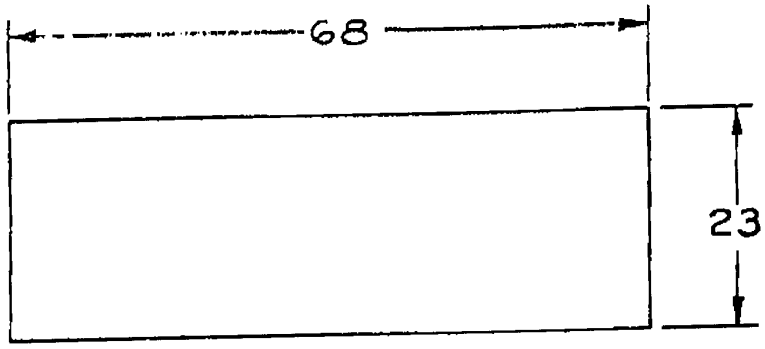
FIGURE D98

FOR MATERIAL NOTE
SEE FIGURE D85



VIEW A-A

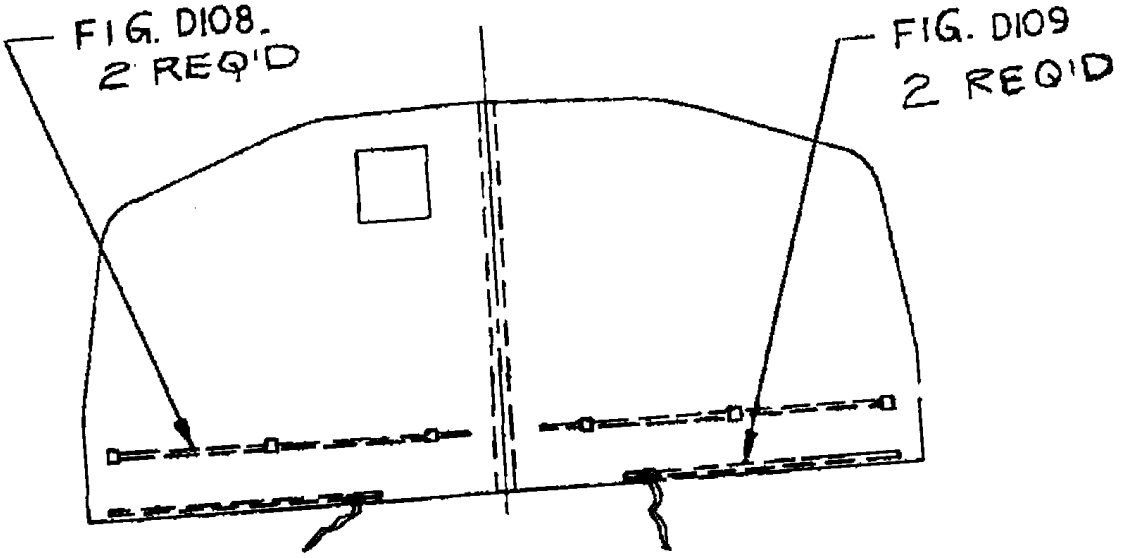
FIG. D99



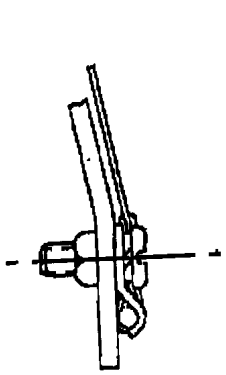
MATERIAL:
TYPE II, CLASS 2
SPEC MIL-C-20696
TOTAL WT OF 14 OUNCES
BALANCED SURFACE COATING
SHALL BE ACCOMPLISHED
2 THICKNESSES OF MATERIAL

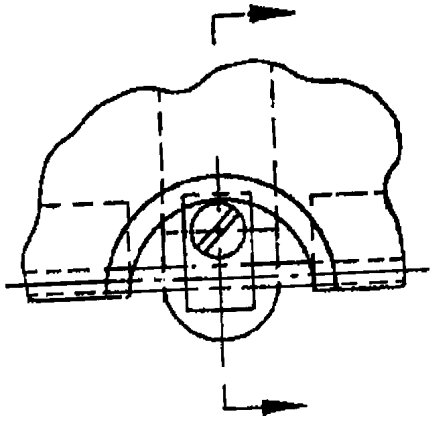
REINFORCEMENT

FIG. D100



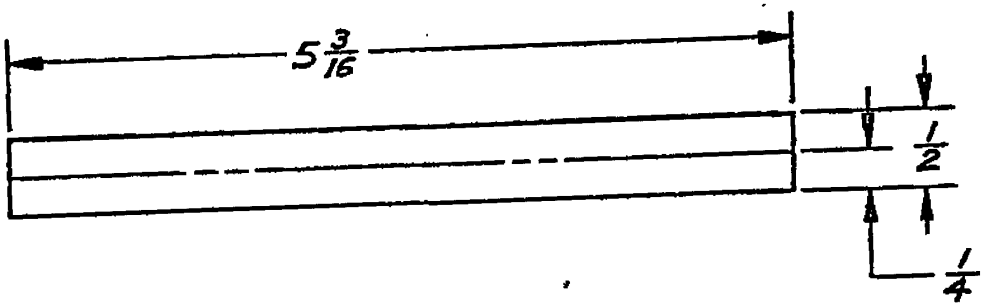
FRONT VIEW X-X
(SEE FIG D92)





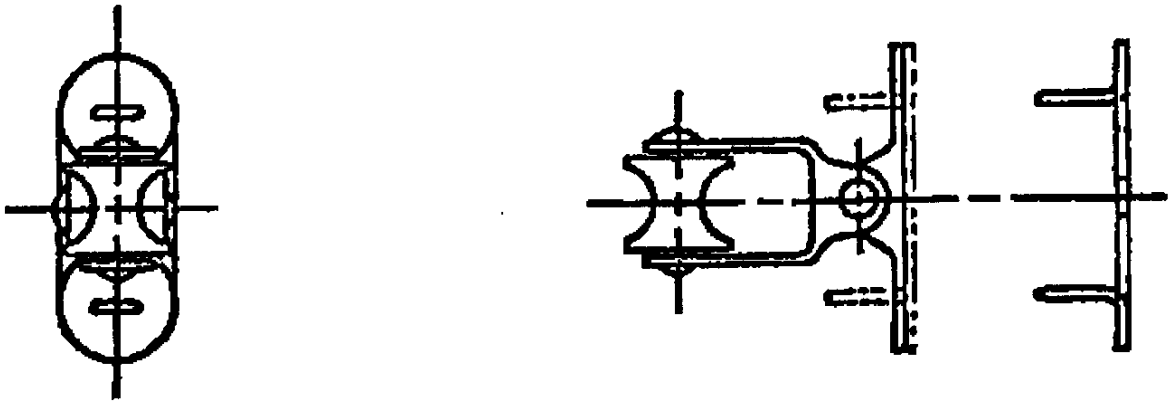
DETAIL D
TYPICAL 6 PLACES

FIG. D102

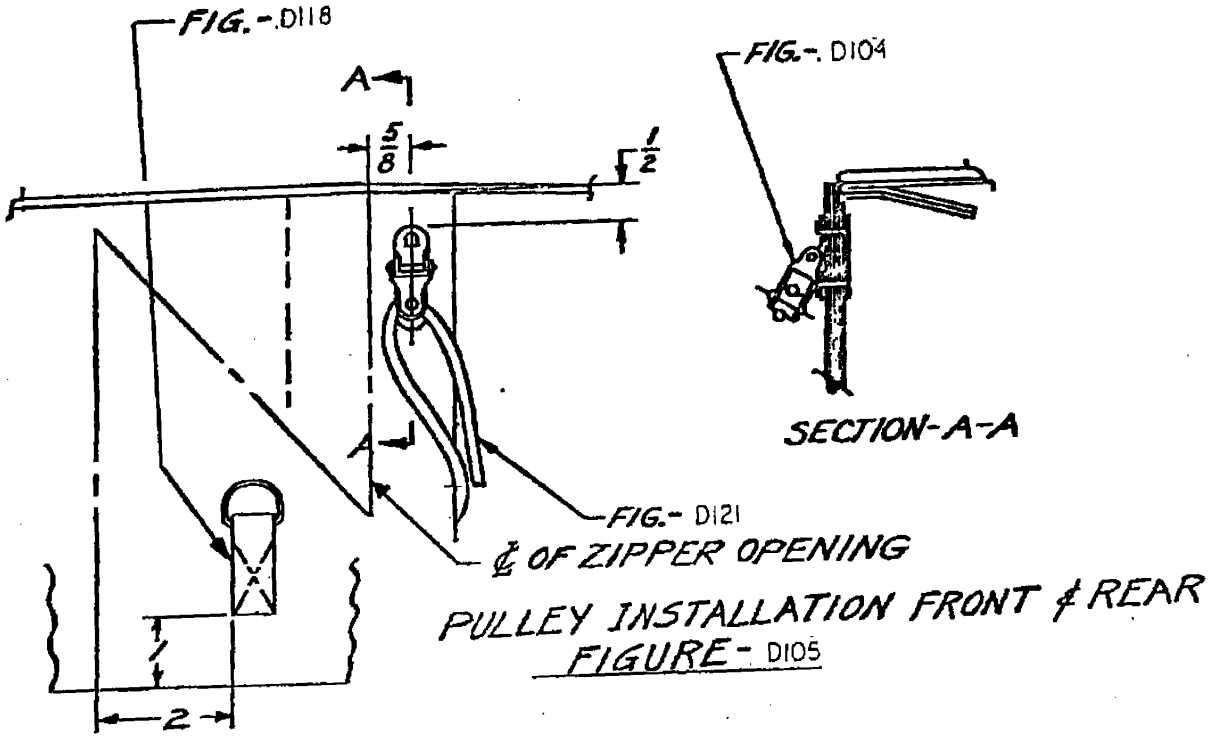


FOR MATERIAL NOTE
SEE FIGURE D85
----FOLD LINE

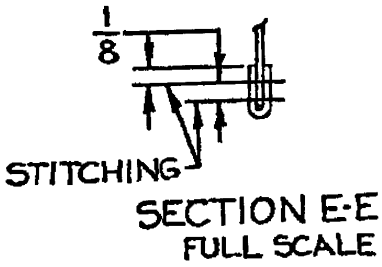
BINDING
FIGURE D103
10 REQD

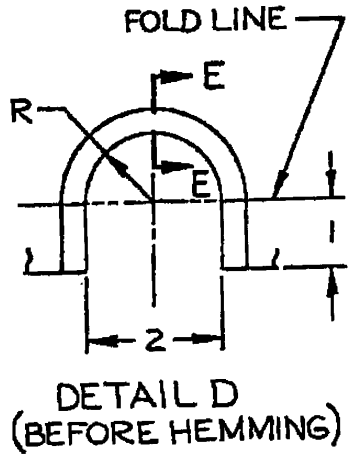


PULLEY ASSEMBLY
FIGURE-D104
2 REQD



PULLEY INSTALLATION FRONT & REAR
FIGURE- D105





SECTION & DETAIL FOR FIG. D87, D89 & D90
FIG. D106

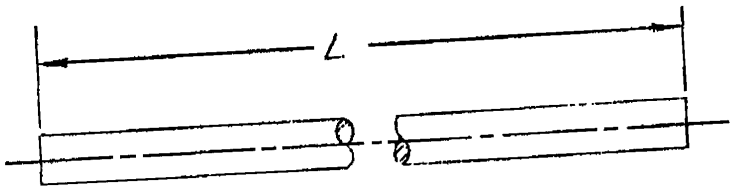


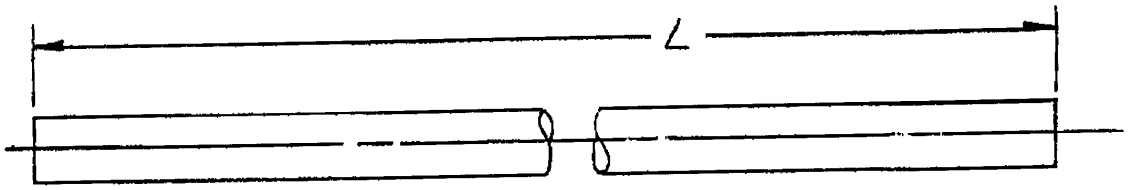
FIGURE NO.	REQD	"L"
D107	8	67
D108	4	60

STEEL, BAR, CARBON
C1010 TO C1020
IN ACCORDANCE WITH ASTM-A108
3/8 DIA

TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

MUST BE FREE OF BURRS

ROD
FIGURE D107
" D108



STEEL, BAR, CARBON
C1010 TO C1020
IN ACCORDANCE WITH ASTM-
A108 1/4 DIA

FIGURE NO.	REQ'D	"L"
D109	4	60
D110	6	76

TREAT, TYPE I OR III, SPEC TT-C-490, APPLY PRIMER, SPEC MIL-P-53030, APPLY TOP COAT, COLOR F.G., SPEC MIL-C-46168.

MUST BE FREE OF BURRS

ROD, TIE DOWN
FIGURE - D109
" D110

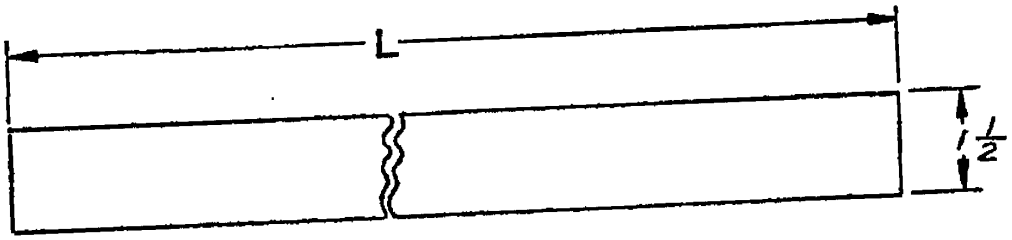
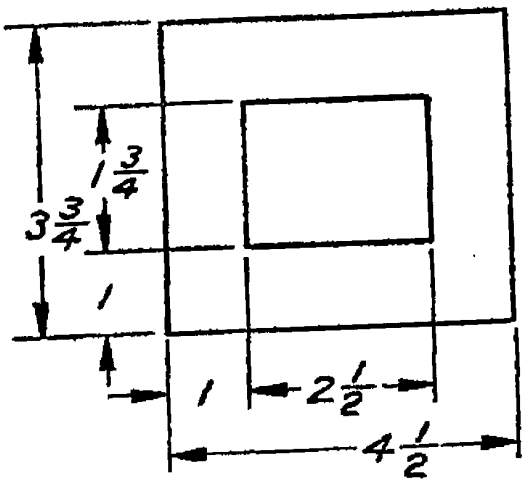


FIGURE NUMBER	REQD	L
FIGURE - D111	4	25 3/4
FIGURE - D112	14	27
FIGURE - D113	8	24

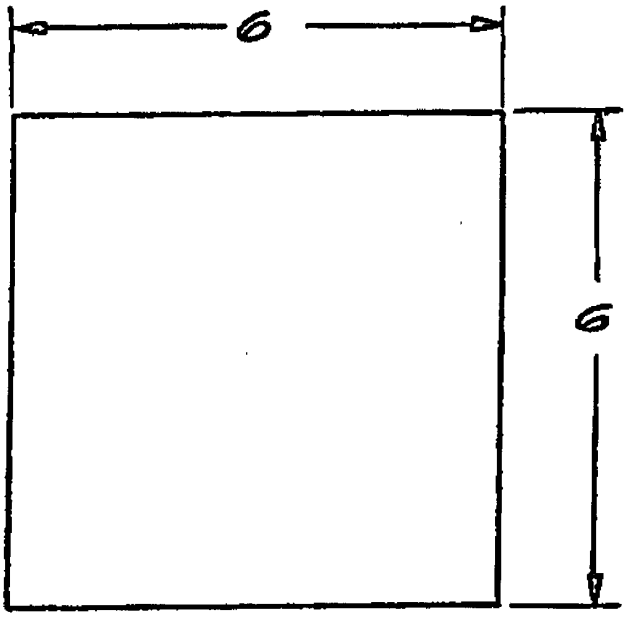
FOR MATERIAL NOTE
SEE FIGURE - D85

STRIP, TIE DOWN
FIGURE - D111
D112
D113



FOR MATERIAL NOTE
SEE FIGURE- D85

REINFORCEMENT, TIE DOWN
FIGURE- D114
32 REQD



MATERIAL:
TYPE II, CLASS 2
SPEC MIL-C-20696
TOTAL WT OF 14 OUNCES
BALANCED SURFACE COATING
SHALL BE ACCOMPLISHED
2 THICKNESSES OF MATERIAL

REINFORCEMENT
31 REQ'D
FIGURE - D115

FIG NO.	NO. REQ'D	DESCRIPTION
D117	4	TIP, RUBBER, SIZE 15 SPEC ZZ-T-351
D118	1	CHAPE, WEB, TYPE 3 WITH D RING ORD. NO. 547557
D119	1	DOUBLE FASTENER, SLIDE, INTERLOCKING, NON-SEPARATING, HEAVY DUTY (SINGLE ACTION, OPEN TOP, CLOSED BOTTOM WITH NON-LOCK DOUBLE PULL REVERSIBLE SLIDER) 62 IN. LONG CLASS B, SIZE H, SPEC V-F-106
D120	*1	ROPE, YARN AND TWINE, MILDEW RESISTANT, ¼" DIA., 150 IN. LONG SPEC T-R-650
D121	*4	ROPE, YARN AND TWINE, MILDEW RESISTANT, ¼" DIA., 72 IN. LONG SPEC T-R-650
D122	1	DOUBLE FASTENER, SLIDE, INTERLOCKING, NON-SEPARATING, HEAVY DUTY (SINGLE ACTION, OPEN TOP, CLOSED BOTTOM WITH NON-LOCK DOUBLE PULL REVERSIBLE SLIDER) 75 IN. LONG CLASS B, SIZE H, SPEC V-F-106

OPTIONAL MATERIALS - NYLON (MIL-R-17343) OR POLYPROPYLENE (MIL-R-24049)

FIGURE D116. Hardware, closure attachment.

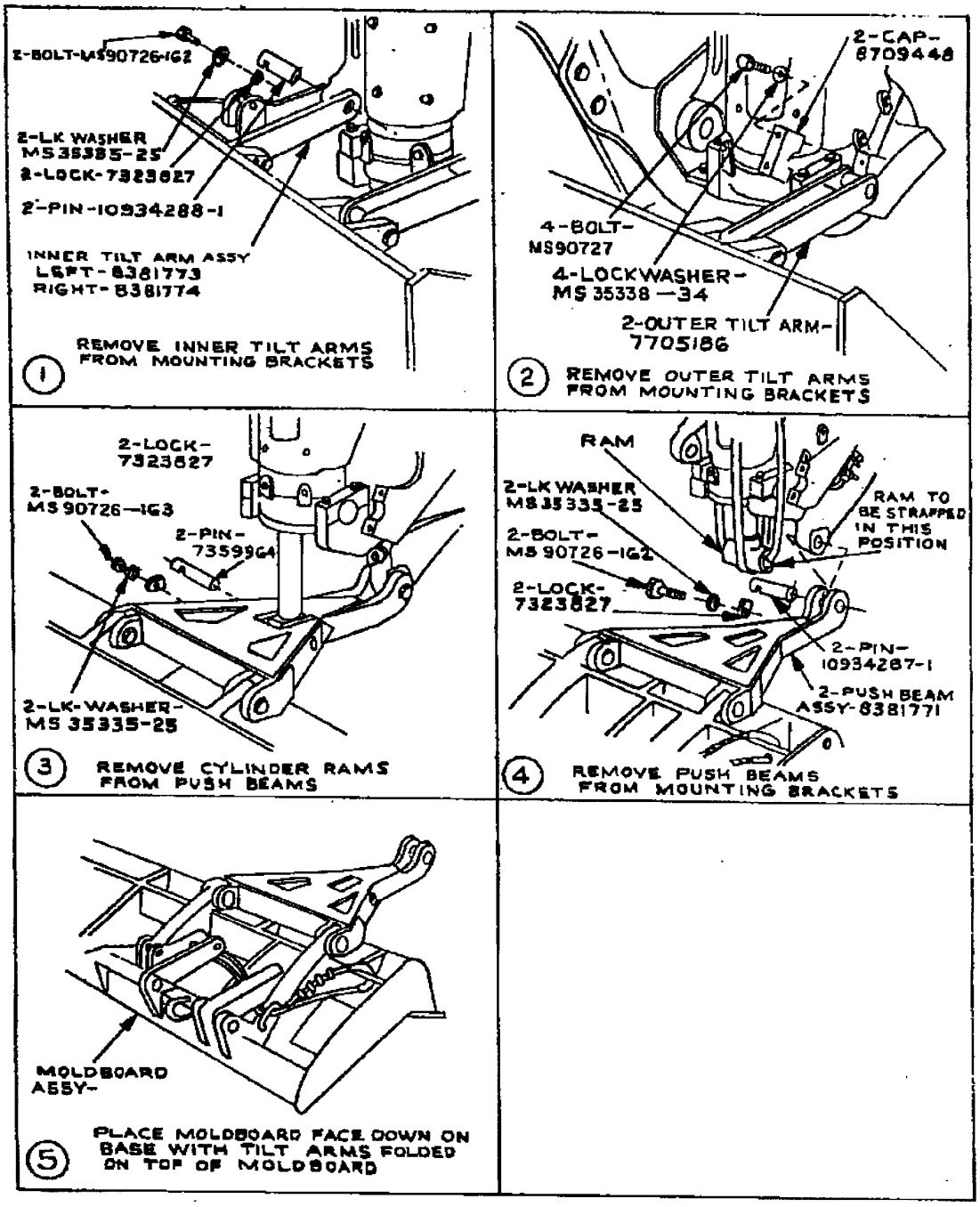
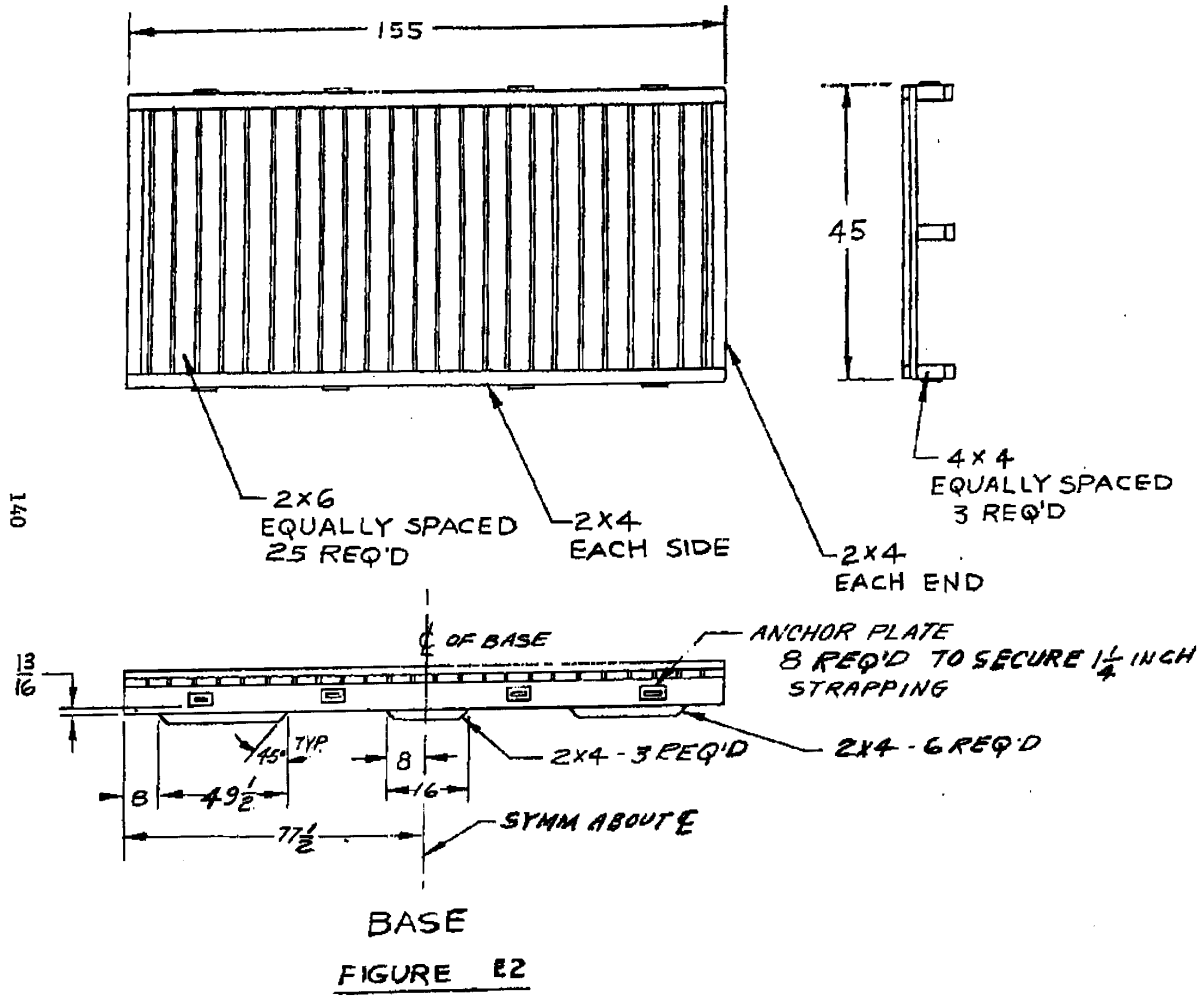
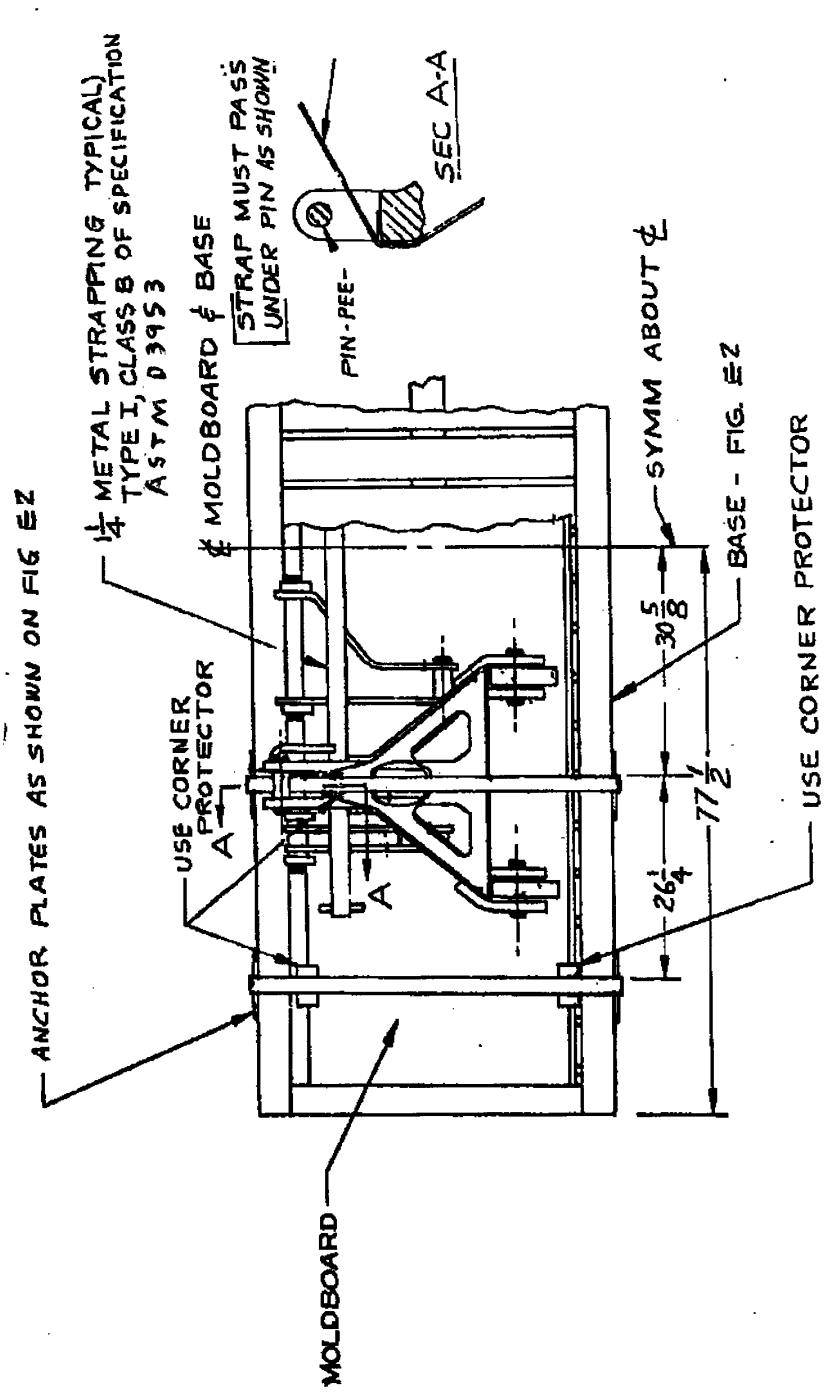


FIGURE E1. Removal of moldboard assembly.



BASE

FIGURE E2



PACKING PROCEDURE FOR MOLDBOARD ASSY

FIGURE E3.